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ABSTRACT

This manual was designed to be a comprehensive resource for a wide variety of persons interested in vocational assessment, including teachers, administrators, and counselors. It provides a resource that educators can use in locating guidelines at specific points in designing or implementing vocational assessment programs for handicapped students. The guide contains eight chapters. The suggested core process for vocational assessment is outlined in chapter 3 and in the section of chapter 6 entitled "Guidance/Process Model for Vocational Evaluation." These sections establish the framework around which the rest of the discussion of vocational assessment is built. Administrators especially may be interested in chapter 2, which outlines the tasks for developing vocational assessment; discussion of planning, staffing, and funding is provided. The "Administrative Arrangements" section of chapter 6 presents options for comprehensive vocational assessment. Chapters 4, 5, and 6, which contain information about various assessment instruments, are designed primarily for those who will implement the various levels of vocational assessment. Other topics considered in the guide include an introduction to vocational assessment, vocational assessment and individualized educational planning, and vocational assessment/evaluation programs in Texas. Extensive appendixes to the document contain forms used in planning and implementing vocational assessment. (KC)

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VOCATIONAL ASSESSMENT OF STUDENTS WITH SPECIAL NEEDS:

A Manual for Implementation in the Public Schools

PROJECT VOC-AIM

TEA Project No. 11230049

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1981

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Preface

This manual was developed in conjunction with research initiated by Michael Peterson in a dissertation study entitled Development of a Model of Vocational Education Assessment and the establishment of the Regional Vocational Evaluation Center at Odessa College. Interaction with individuals at Region XVIII Education Service Center and personnel in the Ector County Independent School District was especially useful. Information was solicited from vocational assessment programs throughout the state of Texas as a component of Project VOC-AIM. Site visits were made to the following programs: Education Service Center Region XX; Dallas Independent School District; North Texas State University; and Goodwill Industries of Fort Worth.

Odessa College staff provided support and resources for implementation of the project. Stephen Southern acted as Director of Project VOC-AIM and Michael Raley, present director of the Regional Vocational Evaluation Center, coordinated the final stages of the project and facilitated the scheduling and implementation of the three regional workshops.

Finally, an excellent advisory committee provided guidance and input to the project. The committee was composed of practitioners, administrators, teacher educators, special educators, vocational evaluators, and vocational educators. Their expert guidance was vital in the implementation of Project VOC-AIM. A list of committee members can be found on the following page.

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How to Use this Manual

This manual was designed to be a comprehensive resource for a wide variety of persons interested in vocational assessment--including administrators, educational diagnosticians, teachers, counselors, vocational adjustment coordinators, vocational assessment specialists, and professional educators. It should be viewed as a resource--not necessarily a book that one reads from front to back--that educators can use in locating guidelines at specific points in designing or implementing vocational assessment programs.

The suggested core process for vocational assessment is outlined in Chapter 3 and in the section of Chapter 6 entitled "Guidance Process Model for Vocational Evaluation." These sections establish the framework around which the rest of the discussion of vocational assessment is built.

Administrators especially may be interested in Chapter 2, which outlines the tasks for developing vocational assessment. Discussion of planning, staffing, and funding is provided. The "Administrative Arrangements" section of Chapter 6 should be helpful in considering options for comprehensive vocational assessment (Level III).

Chapters 4, 5, and 6 are primarily designed for those who will implement the various levels of vocational assessment. Information about various assessment instruments is contained in these chapters. Teachers, educational diagnosticians, vocational adjustment coordinators, counselors, and vocational assessment specialists may find this information useful.

CONTENTS

Page

LIST OF TABLES. ix

LIST OF FIGURES xi

Chapter

1. AN INTRODUCTION TO VOCATIONAL ASSESSMENT 1
   - What Is Vocational Assessment? 2
   - Target Populations 5
   - Historical Perspectives. 5
   - Texas Projects Concerning Vocational Assessment. 11
2. PLANNING AND DEVELOPING A PROGRAM OF VOCATIONAL ASSESSMENT . . 15
   - Developing a Task Force. 16
   - Gathering Information. 17
   - Selecting and Purchasing Assessment Materials and Methods. . . 26
   - Funding. 29
   - Staffing and Training. 32
   - Levels of Vocational Assessment. 35
   - Improving Vocational Assessment. 40
3. THE PROCESS OF VOCATIONAL ASSESSMENT 41
   - Systematic Process for Vocational Assessment 41
   - 1.1: Using Existing Information (Level I) 43
   - 1.11: ARD Committee Develops Assessment Questions 43
   - 1.2: Aptitude and Interest Testing. 47
   - 1.3: Comprehensive Vocational Assessment (Level III). 48
   - 2.0: Developing the Individualized Education Plan 49

Chapter Page

A Case Study 49

4. BASIC VOCATIONAL ASSESSMENT: USING EXISTING INFORMATION (LEVEL I) 53

Special Education Test Data 53

Student and Parent Interviews 65

5. BASIC VOCATIONAL ASSESSMENT: APTITUDE AND INTEREST ASSESSMENT (LEVEL II) 69

Introduction 69

Considerations for Aptitude and Interest Assessment 69

Aptitude Tests 70

Vocational Interest Assessment 71

Timing of Comprehensive Vocational Assessment 73

Student Counseling 74

Basic Vocational Assessment 74

6. COMPREHENSIVE VOCATIONAL ASSESSMENT (LEVEL III) 77

Introduction 77

Administrative Arrangements 77

Procedures and Considerations 88

Guidance/Process Model for Vocational Education 90

Referral and Preparation 92

Methods of Vocational Evaluation 97

7. VOCATIONAL ASSESSMENT AND INDIVIDUALIZED EDUCATION PLANNING 111

Vocational Development Goals 111

Vocational Program Continuum 114

Admission, Review, Dismissal (ARD) Committee 116

Documenting the Individualized Education Plan 117

Chapter Page

8. VOCATIONAL ASSESSMENT/EVALUATION PROGRAMS. 119

Vocational Assessment Programs in Texas. 119

REFERENCES. 125

APPENDICES

A. Training Analysis Form 127

B. Entry Level Criteria/Program Matrix. 131

C. Job Analysis Form. 135

D. Universities with Graduate Programs in Vocational Evaluation 141

Sources of Information Concerning Vocational Assessment 145

E. Individual Vocational Evaluation Plan. 147

F. Work Related Behavior Assessment 151

On-the-Job Rating Form 154

G. Vocational Planning Guide. 155

H. Student Interview Format 159

I. Picture Interest Inventory 163

Verbal Interest Inventory. 167

Test-Disability Matches. 169

Aptitude Tests 170

Dexterity/Coordination Tests 172

J. Basic Vocational Assessment Report 173

K. Referral Form. 179

L. Teacher Notice 183

Parent Notice. 186

M. Vocational Evaluation Report Format. 187

N. Tentative Work Sample System--Disability Matches. 191

APPENDICES

Page

N. Review of Work Sample Systems. 194

O. Individualized Vocational Education Program. 215

TABLES

Table Page

1. Vocational Assessment Guidelines. 4
2. TEA Guidelines for Vocational Assessment. 13
3. Vocational Assessment Planning Checklist. 16
4. Emphases in Information Gathering by Grade. 18
5. Suggested Guidelines for Developmental Assessment Focus 19
6. Methods and Assessment Questions. 27
7. Factors in Evaluating Costs 28
8. Pre-Vocational Enabling Skills. 60
9. Considerations for the Selection and Purchase of Commercial Systems. 101
10. The Steps in Developing a Local Work Sample 102
11. Desired Competencies and Educational Experience 112
12. Vocational Evaluation Programs. 123

FIGURES

Figure Page

1. The Nature of Vocational Assessment. 3
2. Yearly Process of Instruction/Assessment Interaction. 42
3. 1.0 Vocational Assessment. 42
4. Comprehensive Vocational Assessment Process. 91
5. One-Week Vocational Assessment Schedule. 96
6. Analysis Format. 113
7. Instructional Decision-Making. 114

Chapter 1

AN INTRODUCTION TO VOCATIONAL ASSESSMENT

In recent years, increasing emphasis has been placed on the provision of vocational and career education for handicapped persons. Vocational education programs have become more accessible to handicapped students, and special educators, vocational educators, and vocational rehabilitation personnel must now cooperatively develop Individualized Education Plans (IEP's) for handicapped students. To develop effective IEP's, good information concerning the vocational strengths and needs of students is required. Vocational assessment is designed to provide such information. Vocational assessment can:

1. provide a clear picture of student needs and abilities so that a total career development program can be initiated for each student;
2. recommend pre-vocational and life-skills training;
3. recommend appropriate placement in vocational education programs and suggest useful teaching techniques and needed support services;
4. suggest appropriate job placement;
5. provide the student with new motivation by reducing a sense of failure through identification of skills that can be possessed; and
6. provide the student with occupational information and feedback concerning abilities so that life planning can be initiated.

Comprehensive vocational assessment must become part of the vocational education service delivery system for handicapped students. Over

80 percent of Texas educators who were recently surveyed stated that "comprehensive vocational assessment is crucial in developing an appropriate educational program for secondary handicapped students" (Peterson, 1980). Assessment is best developed as an on-going, integral part of the school program which is performed periodically to update recommendations and monitor student progress.

What Is Vocational Assessment?

Dahl (1980, p. 103) defined vocational assessment in the following manner:

> . . .a comprehensive process conducted over a period of time, involving a multi-disciplinary team. . .with the purpose of identifying individual characteristics, education, training, and placement needs, which provides educators the basis for planning an individual's program, and which provides the individual with insight into his or her vocational potential.

Vocational assessment is a systematic process in which information is gathered to make recommendations in several broad areas: (1) pre-vocational and functional life skills training; (2) vocational education program entry; and (3) job placement.

To make recommendations, various student characteristics, skills, and abilities must be assessed. Vocational assessment should gather and analyze the following types of data: (1) medical conditions; (2) functional educational skills; (3) pre-vocational and life skills; (4) vocational aptitudes and abilities; (5) vocational interests; (6) work behaviors, attitudes, and habits; (7) specific job skills; (8) physical and dexterity skills; (9) job seeking skills; (10) career awareness; and (11) learning potential and style. Specific information should be secured depending upon the needs of particular students.

The methods of vocational assessment take into account student needs and institutional resources. This relationship is depicted in Figure 1 below.

WHAT IS VOCATIONAL ASSESSMENT?

VOCATIONAL ASSESSMENT WILL . . .

ASSESS A STUDENT'S . . .	USING . . .
Vocational interests	Interest tests Tour of vocational programs Work samples Job try-outs
Dexterity, coordination, and physical skills	Dexterity tests Physical ability tests Work samples Medical records
Pre-vocational and functional	School records Checklist of skills filled out by teacher, parent Observation during testing Work samples Job/classroom try-outs
Vocational learning style	Work samples Job/classroom try-outs
Basic education skills	Diagnosticians report Teacher checklists Work samples
Vocational aptitude and ability	Dexterity tests Pencil and paper aptitude tests Diagnostician's report Checklist of life skills Work samples Job/classroom try-outs

TO RECOMMEND . . .

Specific vocational training areas.

Program placement level (VAC, VEH, CVAE, or regular vocational)

Job placement

Teaching techniques and curriculum modifications.

Training in pre-vocational and life skills.

Training in work adjustment skills (work behaviors, attitudes, habits)

Additional agency or support services.

Figure 1

The Nature of Vocational Assessment

Special concern must be given to selecting assessment methods that will evaluate with validity student skills and abilities. Some students, especially the severely handicapped, may require comprehensive assessment using many methods. The Guidelines for Vocational Assessment of the Handicapped (Texas Education Agency, 1981) is a publication which describes essentially two types of vocational assessment, Basic Vocational Assessment and Comprehensive Vocational Assessment.

Basic Vocational Assessment is composed of Level I, in which existing special education records, test data, and student and parental interviews are used, and Level II, in which vocational aptitude and interest tests are given. The process outlined by the Texas Education Agency requires a Basic Vocational Assessment (Levels I and II) for all handicapped students. A decision must be made by the ARD committee concerning whether Comprehensive Vocational Assessment (Level III) is needed for a specific student. Level III is more intense than Basic Vocational Assessment and uses sophisticated tools that have been proven successful in evaluating the vocational potentials of handicapped persons. Possible methods of vocational assessment as outlined by the Texas Education Agency are listed in Table 1.

Table 1

Vocational Assessment Guidelines

Type	Method
Basic Vocational Assessment	
Level I	Medical examinations Informal teacher assessment Student records Special education test data Student and parent interviews Vocational counseling
Level II	Vocational aptitude test Vocational interest test
Comprehensive Vocational Assessment	All of above plus any or all of the following:
Level III	Vocational counseling (in-depth) Dexterity and coordination tests Career and vocational exploration Work samples Behavior observations in a controlled work environment Job try-out Vocational classroom try-out

Vocational assessment can be performed using a variety of arrangements. Existing Level I data are gathered primarily through the efforts of teachers, diagnosticians, and counselors. Level II may be administered by teachers, vocational counselors, educational diagnosticians, or vocational assessment specialists. Level III may be coordinated by a vocational assessment specialist in a vocational assessment center or in special education and vocational education classrooms in the regular educational setting (see Chapter 6).

Target Populations

Present Texas Education Agency policy requires that all handicapped students receive Basic Vocational Assessment before placement in any vocational program. Generally, students with severe handicaps will participate in Level III assessment; however, mildly handicapped students may often require Comprehensive Vocational Assessment as well. In addition, disadvantaged and regular students--perhaps in conjunction with occupational orientation classes--can benefit from the vocational assessment program.

Vocational assessment is an ongoing process which should begin in middle/junior high school and continue throughout secondary school. Vocational assessment should be integrated with the school curriculum in order to assist educational decision-making for handicapped students.

Historical Perspectives

Several recent concurrent trends in legislation, litigation, and professional movements in the fields of special education, vocational education, and vocational rehabilitation have stimulated the development of vocational assessment techniques and programs for persons with special needs. These trends include:

1. expanding career and vocational development services for handicapped persons and others with special needs;
2. increasing emphasis upon support services for the severely handicapped;

3. increasing emphasis upon individualized planning and assessment in all agencies associated with career development;
4. developing legislative support for vocational evaluation; and
5. expanding federal policies encouraging cooperation between special education, vocational education, and vocational rehabilitation.

Vocational Evaluation

As professionals working with handicapped persons have attempted to provide vocational assessment, new techniques and methodologies have developed. A field concerned with comprehensive vocational assessment of handicapped persons has been recognized. This field is called "vocational evaluation."

> Vocational evaluation is. . .a comprehensive process that systematically utilizes work, real or simulated, as the focal point for assessment and vocational exploration, the purpose of which is to assist individuals in vocational development. Vocational evaluation incorporates medical, psychological, social, vocational, educational, cultural, and economic data in the attainment of the goals of the evaluation process (VEWAA, 1975).

Vocational evaluation developed in recent years as a distinct field used in many schools and agencies--and with many different types of persons. However, to date, most of the funds in the development of this field have been associated with vocational rehabilitation.

Beginning in 1954, vocational rehabilitation legislation included funds for use in developing the field of vocational evaluation of handicapped persons. Funds have been provided for the following purposes:

1. purchasing of vocational evaluation equipment;
2. staffing of vocational evaluation programs in rehabilitation facilities and in schools;

3. training of vocational evaluators in degree and short-term in-service programs; and
4. developing of vocational evaluation methods and materials.

The provision of adequate training has been especially important. Vocational evaluators require special skills and competencies to do their jobs. Curriculum development workshops and competency studies have aided in improving training efforts. A variety of programs presently provide in-service training throughout the nation, and eleven universities offer graduate training in vocational evaluation.

The Materials Development Center (MDC) at the University of Wisconsin-Stout has had great impact on the developing field of vocational evaluation. This center has received considerable federal funding to develop publications and materials in vocational evaluation and disseminate these to rehabilitation facilities at no cost and to schools and other programs at a minimal charge. Some of their products and services include:

1. publications that review work samples, psychological tests, and innovations in the field;
2. audio-visual materials concerning work samples and other topics relating to vocational evaluation;
3. a Work Sample Manual Clearinghouse that provides loan of work sample manuals so that programs can take advantage of the work of others; and
4. a comprehensive resource library that can be used for mail loan.

As the emphasis on vocational evaluation has grown, work sample systems have been developed and marketed by agencies and commercial firms. Information concerning these systems is summarized later in this manual (Chapter 6). Singer, VALPAR, and WREST, for example, were developed by commercial companies. Other systems were developed by service agencies, such as the JEVS and VITAS, which were developed by the Jewish Employment and Vocational Service under contract with the Department of Labor. Commercial work sample systems have been used widely in vocational evaluation programs.

In 1967, a professional organization for persons involved in the vocational assessment/evaluation of persons with special needs was formed. The Vocational Evaluation and Work Adjustment Association (VEWAA), a division of the National Rehabilitation Association, has been a potent force in developing the field of vocational evaluation. It has sponsored research, developed standards for the field, and encouraged professional development. A quarterly journal, the VEWAA Bulletin, is published by the organization for the purpose of disseminating information concerning vocational evaluation and work adjustment. Presently, VEWAA is developing a national professional certification process which will include standards for training and experience and a written examination with content based upon several competency studies of vocational evaluators.

VEWAA is also working with other professional organizations in developing recommendations related to vocational evaluation in schools. An Inter-professional Task Force concerning Vocational Assessment in Schools was formed. The task force is composed of committees of VEWAA, the National Association of Vocational Education Special Needs Personnel (NAVESNP), and the Division for Career Development of the Council for Exceptional Children (CEC).

Laws Related to Vocational Assessment/Evaluation

Several federal laws have impact on the concern for comprehensive vocational assessment of handicapped persons and others with special needs. These include laws governing vocational rehabilitation, special education, vocational education, and CETA programs. While vocational rehabilitation legislation has provided the greatest impetus for vocational evaluation, education and CETA laws are increasingly emphasizing comprehensive vocational assessment as well.

Vocational rehabilitation. The Rehabilitation Act of 1973 has several provisions that greatly influenced the continued development of vocational evaluation services. Section 504 of this act requires equal opportunity for handicapped persons in programs receiving federal funds. Many vocational training programs that were previously closed to handicapped persons are now open to them. Assessment is needed to insure correct placement in such programs. In addition, Section 503 of this act requires employers contracting with the federal government to take affirmative action in the hiring of the handicapped. Again, adequate assessment is needed for non-discriminatory hiring practices. The act has also continued support of materials development, program funding, and training in vocational evaluation. This legislation has required the development of an Individualized Written Rehabilitation Plan (IWRP) for each rehabilitation client. Individualized planning often requires more adequate, comprehensive assessment.

Comprehensive Employment and Training Act (CETA). CETA programs are designed to provide services for disadvantaged youth and adults. The Comprehensive Employment and Training Act of 1978 requires assessment and the development of an Employability Development Plan (EDP) for each CETA participant. This act states that CETA staff shall. . .

> take into consideration an individual's skills, interests, and career objectives, . . .and shall consider the barriers to employment or advancement faced by that individual . . .An assessment of the appropriate training and supportive services shall be included

in each individual's employability development plan. (P.L. 95-524, Section 205).

Special education. Similarly, Public Law 94-142, the Education for All Handicapped Children Act, contains two major provisions that provide impetus for implementation of comprehensive vocational assessment/ evaluation:

1. the requirement that a free and appropriate education be provided for all handicapped students, no matter how severe their disability; and
2. the requirement of an Individualized Education Plan (IEP) that is based upon an assessment of student needs and input by an inter-disciplinary team.

The IEP must include: a statement of the present level of educational performance; annual educational goals for the student, including short-term instructional objectives; specific educational services to be delivered, including the extent to which the student can participate in the regular school program; projected timelines for service; and evaluation criteria.

Vocational education. The 1968 and 1976 federal vocational education acts established vocational education for handicapped and disadvantaged persons as national priorities and established set-aside funds to be devoted specifically to services for these groups. The provision of funds to state departments of vocational education for research, exemplary and innovative programs, and curriculum and personnel development has facilitated the growth of projects designed to aid implementation of vocational education for students with special needs.

Leaders within the American Vocational Association (AVA) have also recognized the need for comprehensive vocational assessment for all students. Several of the recent AVA legislative task forces made recommendations concerning inclusion of vocational assessment/evaluation in federal vocational education legislation. The task force on the Basic State Grant stated:

> It is proposed that comprehensive assessment centers be funded to assess any individual's capabilities . . .so that an individual career plan may be developed.

The task force dealing with programs for youth and adults made a similar recommendation:

> The assessment function must be broadened. It must include more than the traditional psychological counseling. . .recommendation: identify comprehensive assessment as a function which should be incorporated into the school's vocational education delivery system. Expand the function so that its services touch the student over an extended period of time.

Texas Projects Concerning Vocational Assessment

Within Texas, the need for comprehensive vocational assessment of handicapped students has been recognized. Dr. George Fair, of the University of Texas at Dallas, conducted a study in 1976 to determine the status of the participation of handicapped students in regular vocational programs in Texas. Several recommendations from this study relate to vocational assessment. Dr. Fair indicated a need to identify appropriate students for various vocational education programs and the "implementation of vocational evaluations and other assessments" (Fair, 1976). In a follow-up study completed in 1980, Dr. Fair recommended that statewide standards for vocational assessment be developed (Fair, 1980).

Another project was funded through vocational education to develop a vocational evaluation center at Region XX Education Service Center in San Antonio. This project also investigated potentially useful vocational assessment instruments. The following recommendations were outcomes of the study (Francis, 1980):

1. vocational evaluation should be integrated with the special education appraisal process on the secondary level;
2. in-service programs should be developed to train appraisal personnel and counseling staff members to be team leaders in the vocational assessment process; and
3. funding to operate regional vocational evaluation centers should be identified and made available on a continuing basis.

The Texas Education Agency stated requirements for vocational assessment of handicapped students in the Policies and Procedures for the Education of Handicapped Students. These policies and procedures indicated that a "vocational education assessment" must be completed when considering handicapped students for entrance into vocational education courses (Texas Education Agency, 1979). Subsequently, the departments of Special Education and Occupational Education and Technology jointly published Guidelines for Vocational Assessment of the Handicapped. In the Guidelines, a general process for the vocational assessment of handicapped students is outlined. A summary chart of these guidelines appears in Table 2.

Table 2

TEA Guidelines for Vocational Assessment

Level	Programs (approx.)	Student Population	Methods	When	Where	Personnel: Who Does
I	Regular Vocational Education Job Placement	All Handicapped Students	School records Interview with: student, parents Test data already existing Information from pre-vocational and other teachers	On-going Especially gather one year prior to "vocational educ. eligible age"	Classroom	Educational Diagnostician Special education teacher collects information
II	Regular Vocational Education Job Placement	All Handicapped Students	Vocational interest inventory Vocational aptitude test	Same as above	Classroom Office Voc. Eval. Center	Support staff: Diagnostician; Counselor. Teachers if trained
III	Reg. Voc. Ed. with Support Job Placement CVAE VEH VAC Work Adjustment Workshop	Those for whom more information is needed. (eg. no positive direction from Levels I & II.)	Review/update of medical, psych., educat'l, social Vocational tests Work samples Exploratory try-outs (courses) Observation of work behavior Job try-outs Others	Following Level II. Prior to entrance into vocational classes if needed	Various options: Education Service Ctr. Rehab. Facility (TRC, MHMR, etc.) Multi-dist. Cooperative Private eval. Center In-school Eval. Ctr.	"Persons who have specific training in both vocational assessment and assessment of handicapped persons."

Chapter 2

PLANNING AND DEVELOPING A PROGRAM OF VOCATIONAL ASSESSMENT

As with all educational programs, the development of a system of vocational assessment consists of three phases: (1) development; (2) implementation; and (3) improvement. This section deals with development and improvement. Chapters 3-6 deal with the process of implementation.

Developing an effective, on-going system of vocational assessment is in itself a process. A school system should probably think in terms of developing a three year plan during which time vocational assessment may be integrated into the total curriculum. Many tasks must be implemented to develop a system of vocational assessment. Information provided in this chapter will aid in the planning process that is outlined. The major tasks are listed in the table to follow (Table III). This list may be used both as a checklist in developing a vocational assessment program and as an overview of information provided thorughout the manual. Many of the tasks are discussed in the chapter.

Table 3

Vocational Assessment Planning Checklist

1.0 Preliminary Planning Tasks

- 1.1 Develop a Task Force
- 1.2 Gather information
    - 1.21 Student characteristics
    - 1.22 Developmental assessment questions
    - 1.23 Vocational programs and local jobs
    - 1.24 Local agencies/resources
    - 1.25 Assessment instruments and methods
    - 1.26 Local programs of vocational assessment
    - 1.27 Funding sources
    - 1.28 Staff skills and training
    - 1.29 Alternative administrative arrangements

2.0 Level I: Special Education Information

- 2.1 Develop process to initiate vocational assessment
- 2.2 Identify information to gather
- 2.3 Select or develop teacher forms, checklists, etc., to document student assessment
- 2.4 Identify what teachers, counselors, etc., will have input
- 2.5 Identify who will interview students and parents
- 2.6 Identify who will gather and summarize information

3.0 Level II: Aptitude and Interest Testing

- 3.1 Determine which tests to give
- 3.2 Determine who is to give tests
- 3.3 Determine when and where to give tests
- 3.4 Develop basic vocational assessment report
- 3.5 Develop referral and review process for Level III assessment

4.0 Level III: Comprehensive Vocational Assessment

- 4.1 Determine location and administrative arrangement to be used
- 4.2 Acquire funding for vocational assessment
- 4.3 Acquire professional staff and training if needed
- 4.4 Select and/or develop vocational assessment techniques
- 4.5 Prepare facility space
- 4.6 Develop a process for Level III
- 4.7 Develop procedures for scheduling, transportation, attendance records
- 4.8 Develop reporting formats and procedures
- 4.9 Make school staff aware of the vocational assessment process and procedures
- 4.10 Develop procedures to communicate and use results in student IEP planning

5.0 Improving Vocational Assessment

- 5.1 Follow-up research
- 5.2 Develop local norms
- 5.3 Acquire improved assessment resources

Developing a Task Force

Vocational assessment must utilize information from a great variety of sources. Therefore, an interdisciplinary task force should be involved in planning the vocational assessment program. The task force should minimally involve: vocational educators, administrators, counselors, teachers, special educators, diagnosticians, guidance specialists, and local experts in vocational evaluation. The aim of the task force is to locate information needed to develop a program of vocational assessment and to present the plan to the appropriate school administrators.

It is vital that the task force have access to at least one person who is an expert in the vocational assessment of handicapped persons. Schools may either hire a consultant, use a vocational evaluator in a local program, or both. Several listings are provided in this chapter to help in the location of resource persons.

Gathering Information

The committee must gather information needed to develop a plan. When sufficient information is gathered, many of the subsequent planning tasks can be implemented. This manual is designed to assist in gathering information--particularly, concerning available assessment instruments.

The first, and most important, question the task force must consider is: "What do we need to know about students?" The following information should be gathered: (1) student characteristics; (2) potential developmental assessment questions; (3) entrance criteria related to vocational education programs and local jobs; and (4) information concerning vocational training. With this information, methods and assessment techniques may be selected to provide required information in a manner that is appropriate for the students being assessed. Each of the information areas is discussed below.

Student Characteristics

The Task Force should analyze data concerning its handicapped student population. Depending upon the numbers of students and the type of disability groups, an estimate can be made regarding the amount of assessment resources needed to complete this task. For example, a school which offers a day school program for deaf students will need to consider assessment tools and staff for these students.

Developmental Assessment Questions

In designing a system of vocational assessment, educators must develop a process to identify questions that need to be answered concerning handicapped students. Methods may then be selected to answer specific questions. Vocational assessment should be built into the total curriculum for grades 7-12. However, as students progress through school, different information is needed. The emphases for each grade are presented in Table 4.

Table 4

Emphases in Information Gathering by Grade

Grade	Emphasis
7	Career awareness and the development of work habits and behaviors
8	Ongoing occupational orientation and exploration of specific interests and abilities for entrance into vocational programs in the 9th grade
9	Additional brief assessment to recommend placement in a regular vocational program, a VEH program, or a CVAE program
10	Assessment to provide the best job placement or another placement in a different vocational education program
11-12	Assessment to recommend the best job placement or referral to another agency for those who are not yet employable

The information gathering process can be considered a plan for systematically asking assessment questions. Guidelines for assessment questions are listed by grade level in Table 5 following.

Table 5

Suggested Guidelines for Developmental Assessment Focus

Assessment Questions	Grades						
	6	7	8	9	10	11	12
CAREER EDUCATION SKILLS							
1. Functional academic skills	X	X	X	X	X	X	X
2. Pre-vocational skills	X	X	X	X			
3. Work behaviors	X	X	X	X	X	X	X
4. Independent living skills				X	X	X	X
5. Learning style	X	X	X	X	X	X	X
VOCATIONAL EDUCATION SKILLS							
1. Vocational interests	X	X	X	X	X	X	X
2. Career awareness	X	X	X	X			
3. Mental and physical abilities	X	X	X	X	X	X	X
4. Entrance into a vocational education program			X	X	X		X
5. Job placement					X	X	X
6. Support services from special education			X	X	X	X	X
7. Related agency services			X	X	X	X	X

Local Assessment Programs and Other Resources

Comprehensive vocational assessment is designed to make recommendations for a student vocational IEP. Consequently, those conducting the assessment and those using the results should be aware of resources within the area. Many students need additional services after high school graduation. Vocational assessment can suggest continued vocational training following high school through work with the Texas Rehabilitation Commission, the local Mental Health/Mental Retardation Community Center, a rehabilitation facility (e.g., Goodwill or Easter Seal), the CETA program, and the community college.

Some of these agencies will have vocational assessment/evaluation centers. They are staffed by trained and experienced vocational evaluators who may give suggestions and guidance to school personnel. These programs may also use work sample systems that educators can review directly. Cooperative arrangements can be developed with such centers to provide assessment services for the local education agency.

Vocational Education Programs: Entry Level Criteria

Giving vocational assessment tests without knowing the entrance criteria of programs will not allow student skills to be matched to the requirements of those programs. Each of the vocational training options in a school system should be analyzed to determine entrance criteria, success or mastery skills, and teaching techniques. For example, if one is assessing a mentally retarded student to determine if auto mechanics is an appropriate training program, one must know the skills that a student should possess to complete the course. Information about the required knowledge of tools, reading ability, and dexterity skills should be secured. Minimal skill levels are the primary concerns. One also needs to know how the course is taught, what rate of learning is expected for the student, and what curriculum modifications are possible. After resolving these issues, one can then select or develop an appropriate assessment instrument. Without a thorough knowledge of entrance criteria, the time spent on vocational assessment is wasted. The truth is that much of this information is used constantly. However, in many school systems, the information is not stated explicitly. The more explicitly entrance criteria can be stated, the better will be the assessment program and the vocational student selection process in general. To gather entrance criteria for vocational programs, the following tasks should be completed:

Identify the local vocational programs available to handicapped students. The resources include regular vocational programs and modified vocational programs, Vocational Education for the Handicapped (VEH), Vocational Adjustment Coordinator (VAC), and Coordinated Vocational-Academic Education (CVAE). Rehabilitation facilities, sheltered workshops, and pre-vocational training programs may also be available.

Gather information from the teachers of these programs. Questions should be asked about entrance criteria, success behaviors, teaching techniques, and potential curricula modifications. Initially, direct interaction with teachers will be helpful. If in-service training is conducted, teachers could complete a "training analysis" form (see Appendix A) and return it to the task force or vocational assessment specialist. As indicated on the Training Analysis Form, entrance criteria should be gathered in the areas listed below for each program--i.e., CVAE agriculture and CVAE general construction trades would require different entry level skills of students.

Physical Skills

- walking
- standing
- lifting
- carrying
- speech
- fine/gross motor dexterity

Vocational Skills

- safety rules
- use of basic tools
- work behaviors

Educational Skills

- reading
- math
- language
- problem-solving

Develop an entrance criteria/program matrix chart. Each entry level skill for a given program will probably apply to a number of vocational programs. A chart can be developed that relates each entry level characteristic to all applicable programs (see Appendix B). The chart promotes an understanding of program requirements and provides an aid in specifying assessment questions. In determining whether a student should enter a vocational program in auto mechanics, a chart will indicate exactly what needs to be asked about that student. Assessment information can be related to vocational program requirements. If task analysis forms are kept with this chart, a vocational assessment specialist possesses an invaluable tool in making recommendations for entrance into vocational programs.

Compile the information into a booklet. Having such information will help in using Level I and II assessment information to determine if students possess minimal skills without having to use the expensive, comprehensive Level III assessment. However, entrance criteria, program descriptions, and potential curricula modifications should be reviewed and updated on a regular basis.

This process involves a great deal of work, but the information can be invaluable in ARD meetings, for example. A systematic procedure should be developed and implemented for gathering information. The resources listed below may be useful in this process.

Project VESEP (Vocational Education/Special Education Project).

Career Education
College of Education
Michigan State University
East Lansing, Michigan 48824

This project identified "prevocational enabling skills" associated with training programs for handicapped persons in Michigan. A detailed skills/program matrix was developed. The vocational programs and requirements have not been compared yet with those in Texas, so modifications in the system may need to be made. However, VESEP provides an excellent model and usable entrance criteria information.

Texas A & M Studies.

Vocational Special Needs
College of Education
Texas A & M University
College Station, Texas 77843

Three studies were implemented by personnel at Texas A & M University to determine entrance criteria for the following vocational programs: vocational agriculture, homemaking, and auto mechanics.

Project VERT (Vocational Education Readiness Test).

RCU
Mississippi State University
P.O. Drawer DX
Mississippi State, Mississippi 39762

This project identified entry level skills needed for vocational programs in Mississippi. Work samples to assess these skills were developed.

Local Job Requirements

Many handicapped students will enter employment as part of their high school program or immediately following graduation from high school. Vocational assessment can be used to provide information concerning interests and skills in recommending optimum job placement. The goal, of course, is to help handicapped students find the best jobs possible. Information is needed concerning types of jobs available in the community and job skill requirements.

Information concerning jobs is available from a variety of sources. Vocational adjustment coordinators and vocational education teachers are familiar with local jobs. Local advisory committees for vocational education can provide valuable contacts and information. In addition, publications from the State Employment Commission provide information concerning local job openings. Information concerning the skill and task requirements is gained primarily through job analysis and the use of the Dictionary of Occupational Titles (DOT).

Job analysis involves gathering of information about the tasks and skill requirements of jobs. Direct observations combined with interviews of employers, supervisors, or workers can be used. If job try-outs (Chapter 6) are used as part of Level III assessment, specific job analysis can aid in generalizing abilities from one job to another. Job analysis can also be used in developing work samples and suggesting job modifications. A "Job Analysis Form" is included as Appendix C. Job analysis is most effective when those doing the analysis have received training in the technique. Universities offering vocational teacher certification offer courses in vocational education curriculum development. These courses usually offer training in job analysis. Training programs for vocational evaluators offer training as well. The following publications can be useful in conducting a job analysis in the format provided by the Dictionary of Occupational Titles.

1. Job Analysis Training Manual
2. Handbook for Analyzing Jobs, Cost: $3.00
   Available from: Research and Training Center
   University of Wisconsin-Stout (see Appendix D)

Dictionary of Occupational Titles: A Resource for Planning and Implementing Vocational Assessment

The Department of Labor has conducted extensive research in gathering information related to jobs in the United States economy. This information has been compiled in the Dictionary of Occupational Titles (DOT). The third edition of the DOT was published in 1965 in two volumes with additional supplements. Volume I contains an alphabetical listing of jobs with a description of job tasks. Volume II of the third edition contains information about significant worker-trait requirements for clusters of occupations.

In 1977, the fourth edition of the DOT was published.

The DOT provides several coding systems that can be used in vocational assessment. A description for each occupation is provided in terms of characteristics related to working with data, people, and things. These characteristics are called "worker functions." In addition, a "qualifications profile" is provided for each job in the DOT. The profile includes the following components: specific vocational preparation time; general educational development aptitudes; physical demands; environmental conditions; work activities; and work situations. This information can be used to compare students' interests and abilities to the requirements of specific jobs. The information is also useful in the development of vocational assessment methods such as work samples and job try-outs. A numerical code is used in the DOT to describe requirements under each category of the "qualifications profile." Eleven aptitudes are defined and rated on a one-to-five scale. The aptitudes are: intelligence (G); verbal ability (V); numerical ability (N); spatial ability (S); form perception (P); clerical perception (Q); motor coordination (K); finger dexterity (F); manual dexterity (M); eye-hand-foot coordination (E); and color discrimination (C). Definitions for the aptitudes are offered in the DOT.

A publication entitled Classification of Jobs is available which directly relates this "qualifications profile" to each job listed in the 1977 edition of the DOT. The publication includes four major sections: (1) jobs listed alphabetically by title (with accompanying qualifications profile information): (2) jobs listed by occupational group arrangement; (3) jobs listed according to level of difficulty within categories used in the Department of Labor's Guide to Occupational Exploration; and (4) jobs listed in overall order of level of difficulty. In each of the listings, coded qualifications profiles are provided. In conjunction with the DOT, this document is very useful in planning and implementing vocational assessment. It may be ordered from:

VDARE Service Bureau
P.O. Box 55
Roswell, Georgia 30077
(Cost: $19.95)

A training manual regarding the use of the DOT is also available. This self-instructional manual is designed to assist professionals in the effective use of the fourth edition of the DOT.

The Dictionary of Occupational Titles in Vocational Assessment
(Cost: $3.00)
Available from: Materials Development Center
University of Wisconsin-Stout (see Appendix D)

The Dictionary of Occupational Titles may be ordered from:

Superintendent of Documents
U.S. Department of Labor
U.S. Government Printing Office
Washington, D.C. 20402
(Cost: $12.00)

Selecting and Purchasing Assessment Materials and Methods

The selection of assessment methods and instruments must be based upon the characteristics of the target population and the types of assessment questions. Assessment questions themselves are based upon the entrance criteria of the various goal environments, especially vocational programs; a universe of developmentally based assesment questions; and the specific needs of the student. Methods must be selected that show the most promise of providing valid and cost-effective techniques for answering assessment questions. General methods of vocational assessment are identified in Table 6.

Table 6

Methods and Assessment Questions

Type of Information	Method	Level
CAREER EDUCATION SKILLS		
Mental ability	Special education testing	I
	Teacher assessment	I
Vocational learning Style	Special education testing	I
	Teacher assessment	I
	Work samples	III
	Vocational classrm try-out	III
Work behaviors	Teacher assessment	I
	Parent interview	I
	Work behavior check-list	I/III
	Work samples	III
	Behavior observation in a controlled work setting	III
	Vocational Classrm try-out	III
Functional academic skills	Special education testing	I
	Teacher assessment	I
	Work samples	III
	Parent interview	I
Pre-vocational and life skills	Teacher assessment	I
	Life skills check-lists	I/III
	Parent interview	I/III
Physical skills	Medical examination	I
	Dexterity/coord. tests	II/III III
	General work samples	I
	Physical ed teacher	
VOCATIONAL EDUCATION SKILLS		
Vocational interests	Picture/verbal interest tests	II/III
	Student interview	I
	Parent interview	I
	Tour of jobs/vocl prgs	I/II/III
Vocational aptitudes	Vocl aptitude tests	II/III
	Work samples	III
	Vocl class try-out	III
	Job try-out	III
Career awareness	Career development test	II/III
	Teacher assessment	I
	Student interview	I/III
	Career exploration	I/III
Specific vocational skills	Teacher assessment	I
	Pre-vocational skills check-list	I
	Vocational aptitude test	II
	Work samples	III
	Vocational class try-out	III
	Job try-out	III

These methods must be evaluated in terms of their cost and effectiveness. This is especially true in the vocational assessment of handicapped persons. Some types of tests--particularly paper and pencil aptitude tests--are relatively inexpensive but have proven invalid for handicapped students. On the other hand, many vocational assessment instruments--especially commercial work sample systems--can cost thousands of dollars. Depending upon the nature of the population, the type of commercial system, and the desired information, these instruments may or may not provide valuable information. Factors to consider in evaluating the cost of vocational assessment instruments may be considered under three categories:

Table 7

Factors in Evaluating Costs

Factor	Cost
Money	cost of equipment and materials durability of materials and cost of repairs cost of replacement of expendable materials space and facility requirements and preparation
Time	development time administration time staff training time
Staff	availability of trained staff required training of staff number of staff

It is clear that the cost of materials is not the only factor to consider. Questions concerning the use of staff are especially important. Many commercial work sample systems require training at the expense of the buyer. However, if trained staff can be hired, this cost may not pose a problem. Factors to consider in evaluating effectiveness include the following:

1. Usefulness with target population
2. Response to assessment questions--especially entrance criteria for vocational programs
3. Comprehensiveness of assessment
4. Face validity
5. Relevance to local jobs and training programs
6. Availability of training and/or trained personnel
7. Technical considerations--norms, reliability, validity

A frequent tendency of those who develop vocational assessment programs is to focus on methods and tests before they know the specific information needs and to become overly impressed with the large, attractive commercial work sample systems. While these systems may be useful, they do not necessarily provide all the information that is needed. If one elects to establish systematic Level I procedures and use trained staff who can develop local work samples, this procedure may provide much better information, at much less capital outlay, than using commercial work sample systems. The various assessment methods mentioned above are reviewed later and disadvantages and advantages are provided for each. Work samples, however, are usually needed in the valid vocational assessment of handicapped students. Start with some commercial work samples that relate as closely as possible to needs and develop local work samples over a period of time to supplement and improve the program.

Funding

Programs of vocational assessment/evaluation often require extra expenditures of money. Extra funds may be needed for the following purposes:

1. hiring and/or training of staff;
2. purchase of vocational assessment equipment or materials;
3. local development of work samples and other assessment materials; and
4. renovation of facilities

Funding is especially needed when the assessment program is initiated, because capital outlay is more extensive at that time. The cost of vocational assessment materials makes exploration of cooperative funding arrangements with other schools or agencies worth careful consideration. Some possible sources for funding of vocational assessment/evaluation programs are discussed in subsequent sections. These should be reviewed in conjunction with the consideration of administrative arrangements for comprehensive vocational assessment (see Chapter 7).

Texas Rehabilitation Commission (TRC)

The Texas Rehabilitation Commission (TRC) can provide money to develop vocational evaluation programs for handicapped persons. Grants are sometimes available to aid in renovating facilities, acquiring vocational evaluation materials and equipment, and hiring staff. Usually, letters of intent are filed in the spring and grant proposals are developed later. Grants are available from monies remaining from unexpended general agency funds at the end of the fiscal year--i.e., September 30. For information concerning possible grants, contact the supervisor of the local TRC office or write a letter of inquiry to the state office.

Texas Rehabilitation Commission
118 E. Riverside
Austin, Texas 78704
(512) 447-4011

Vocational evaluation centers may be established as independent units in cooperation with other agencies. TRC counselors can pay up to $450 for two six-week vocational evaluations for their clients. Some handicapped students receive services in this manner. In addition, such monies may be available to partially support a cooperatively funded vocational assessment center.

Texas Education Agency: Minimum Foundation

Minimum foundation funds may be used for the salaries of vocational assessment specialists. These personnel units are part of the normal allocation for special education personnel by the Texas Education Agency. Certification standards for these positions are presently being developed.

Public Law 94-142

Funds are available for extra expenses needed to educate the more severely handicapped. Vocational assessment is an allowable expense for use of these funds. Vocational evaluation is especially indicated for some severely handicapped students in order to develop appropriate Individual Education Plans.

Comprehensive Employment and Training Act (CETA)

Funds that can be used for vocational assessment are available through the Comprehensive Employment and Training Act of 1978. Several parts of the act may apply:

1. Title II funds can be used in conjunction with other monies to develop an inter-agency vocational assessment center;
2. Title IV, youth programs, can be used to develop vocational assessment for disadvantaged youth; and
3. Section 204 monies are funds available for cooperative projects with vocational education and CETA.

Use of CETA monies requires a close working relationship between CETA and education. CETA funds are for programs for disadvantaged persons. However, handicapped students are by definition "disadvantaged," according to CETA regulations.

Cooperative Local Funding Arrangements

Several local agencies could cooperatively fund a community vocational assessment center out of local funds. The following agencies should be considered: Mental Health/Mental Retardation Community Centers; state institutions; CETA; community colleges; and Vocational Rehabilitation centers.

Staffing and Training

Vocational assessment must be implemented as a team process. Thus, various staff will be involved in the vocational assessment process. Depending on the procedures developed by the local education agency, specific vocational assessment methods could be implemented by several types of personnel.

Vocational Assessment Specialist

A vocational assessment specialist who has training in vocational evaluation should be employed. A vocational assessment specialist could coordinate the total vocational assessment process, act as a trainer and consultant to other school personnel, administer certain components of the vocational assessment, interpret the results, and make recommendations. A vocational assessment specialist can work in a single school or with several school districts.

Aide/Psychometrician

An aide can be employed in a vocational assessment program. This person would be primarily responsible for administering and scoring tests and performing other routine tasks in the assessment process. The aide should possess appropriate training in evaluation procedures.

Educational Diagnostician

The educational diagnostician is a crucial team member in the vocational assessment process. Educational and vocational assessment for secondary students should be viewed as two components of the total secondary assessment process. The educational diagnostician in some schools may implement some assessment procedures as part of Basic Vocational Assessment. The diagnostician, vocational counselor, and vocational assessment specialist will review basic assessment information in order to determine whether additional evaluation is needed.

Vocational Adjustment Coordinator (VAC)

The VAC can provide on-going assessment as part of the instructional program (Level I) and can facilitate job tryouts as part of vocational assessment. The VAC can provide valuable information concerning local jobs and can perform job analysis. The VAC can, with training, administer some vocational tests.

Special Education Teachers

Special education teachers can provide Level I assessment for students and can administer some basic vocational tests. Special education teachers especially can monitor student progress in life skills and prevocational skills through the use of appropriate checklists and other media.

Special Education Director

Though the special education director will probably not be directly involved in vocational assessment, cooperative relationships with the vocational education director and possibly with the staff of a separate vocational evaluation center must be established. The special education director must be aware of the vocational assessment guidelines and support vocational assessment by helping to provide staff and materials.

Vocational Education Director

Similarly, the vocational education director is a facilitator of vocational assessment. Since vocational assessment provides information to recommend entrance of handicapped students into vocational education courses, the director can provide information concerning programs and can encourage the involvement of vocational personnel in assessment.

Vocational Counselor

The vocational counselor can administer vocational aptitude or interest tests, provide detailed information concerning vocational programs, and direct tours of vocational programs by students. Vocational counselors are key persons in facilitating the development and implementation of vocational assessment. They will aid in reviewing basic vocational assessment information and will serve on the vocational ARD committee when students are recommended for entrance into vocational programs.

Vocational Teachers

Vocational teachers should have input into the assessment of students for entrance into their classes. They may interview students, administer work samples, or facilitate vocational classroom try-outs.

Occupational or Physical Therapist

In certain cases, specialists such as occupational and physical therapists can provide information concerning a student's ability to function in various occupational environments. Some occupational therapists have excellent credentials for employment in vocational assessment centers.

Rehabilitation Counselor

A rehabilitation counselor should be involved in the ARD meeting for students nearing graduation who will potentially need continuing services. Interagency ventures such as a cooperative center will require close working relationships with rehabilitation agency counselors.

Parents

Parents' knowledge and attitudes have tremendous impact on the vocational development of handicapped students. Therefore, they are required to be involved in the vocational assessment. Parents will participate in an interview and can provide verbal or written information concerning the student.

Levels of Vocational Assessment

Level I Vocational Assessment requires developing a system for a wide variety of staff persons to provide input into the on-going process of vocational assessment--e.g., gathering information concerning vocationally relevant student characteristics. Individuals who perform these functions will have training needs associated with their roles in the assessment process. Training needs include:

1. behavior observation techniques;
2. use of career education and life skills checklists;
3. use of behavioral checklists and rating forms;
4. development and use of competency-based student assessment forms;

and

5. use of vocational assessment information in planning students' Individual Education Plans (IEP).

Such training will probably be most effective as a local in-service activity or one initiated by a regional education service center or a university.

An individual must be selected and trained to summarize Level I information--teacher assessments, special education test data, and student and parent interviews. The TEA Guidelines for Vocational Assessment suggest that the special education teacher perform this function. However, a vocational assessment specialist, diagnostician, counselor, or another member of the team could conceivably perform well. When the aforementioned information is summarized, persons who conduct Levels II and III assessment should be notified.

For the Level II component of vocational assessment, individuals must be chosen and trained who can select, administer, and score vocational aptitude and interest tests; write vocational assessment reports; and review basic vocational assessment information to suggest a vocational ARD or more comprehensive (Level III) vocational assessment. A variety of individuals could implement these tasks, including a vocational assessment specialist, an educational diagnostician, a vocational counselor, a vocational adjustment coordinator, or a special education teacher. The TEA Guidelines recommend that both special education and vocational education support personnel (the educational diagnostician and vocational counselor) be responsible for reviewing Level I and II assessment data.

More intensive training is needed for staff who are involved in this level of vocational assessment. Staff must be familiar with a wide variety of vocational aptitude and interest tests and must be able to write useful summary assessment reports. Training is especially important for those who review the Basic Vocational Assessment information. These individuals must interpret available data and decide whether or not additional, more comprehensive assessment is needed. This decision is crucial if non-discriminatory assessment for entrance into vocational programs is to be implemented.

Training may be available from several sources. Departments of counselor education which offer vocational counselor certification have courses in the selection, administration, and interpretation of vocational tests as well as life skills and related behavioral measures. Education Service Centers may provide additional preparation via in-service training. North Texas State University's Center for Rehabilitation Studies can provide coursework and in-service training in vocational assessment--both Levels II and III. Other universities in Texas are making plans to offer such instruction, including East Texas State University and Texas A & M University.

Vocational assessment specialists (vocational evaluators) are individuals responsible for implementing Level III vocational assessment and for coordinating the total vocational assessment process. In certain cases, such individuals may also have responsibilities in Levels I and II vocational assessment. Other staff may also be involved in the Level III vocational assessment. Vocational teachers may interview students or give work samples in vocational classrooms. Employers can supervise students in job try-out situations. Other specialists in several fields--such as occupational therapists, rehabilitation counselors, and physical therapists--can lend their expertise to Level III assessment.

Vocational assessment specialists must possess adequate training in vocational evaluation. They will be called upon to provide in-service training for others. They must understand handicapped students, vocational education programs, the world of work, counseling, and the techniques of vocational assessment. The following major skills are needed:

1. vocational counseling with handicapped persons;
2. administration and interpretation of vocationally-related psychometric tests;
3. administration and interpretation of dexterity and coordination tests and other measures of physical abilities;
4. ability to select, administer, and interpret results of commercial vocational evaluation systems;
5. ability to develop and use local work samples;
6. understanding of job analysis techniques;
7. understanding of the use of occupational information resources and occupational exploration techniques;
8. ability to develop various situational assessments in vocational evaluation including behavior observation in a controlled work environment, job try-out, and classroom try-out; and
9. ability to synthesize, interpret, and write reports.

Additional information concerning skills needed by vocational evaluators is available in the following publications from the Materials Development Center (see Appendix D): Vocational Evaluation Project: Final Report; Vocational Evaluator Roles and Functions; and Vocational (Work) Evaluation.

Certification and training standards for vocational assessment specialists are presently being studied by the Texas Education Agency. The Secondary Task Force of the Council for Personnel Preparation has recommended that employment and certification practices require training, yet be flexible regarding terms and sources of training and experience. According to these recommendations, training and experience may have been gained in a wide variety of settings--e.g., rehabilitation facilities or CETA programs.

Ten universities provide graduate training in vocational evaluation. School personnel may contact trained vocational evaluators in these programs. While vocational evaluators are in great demand, jobs are highly dispersed geographically. Graduates of these programs must be willing to make long moves as a result. A list of universities with graduate training programs in vocational assessment/evaluation is provided in Appendix D.

The Materials Development Center at the University of Wisconsin-Stout also maintains a placement service for vocational evaluators. A position may be advertised by contacting:

Ron Fry
VEWAA Employment Exchange
Materials Development Center
University of Wisconsin-Stout
Menomie, Wisconsin 54751

Additionally, there are many trained vocational evaluators in Texas. Texas VEWAA publishes a quarterly newsletter in which job positions may be posted. Contact:

Dr. Bill Webber
P.O. Box 6155
Nacogdoches, Texas 75962

Training is available through several sources. Each of the ten graduate programs provide training. North Texas State University, the University of Wisconsin-Stout, and others periodically provide week-long workshops in which intensive training is available. Training in specific commercial vocational evaluation systems is provided by the following organizations: JEVS/VIEWS/VITAS, McCarron-Dial, VALPAR, TOWER/MICRO-TOWER, etc. In-service training is also available from the following projects:

Research and Training Center in
Mental Retardation
Texas Tech University
Lubbock, Texas 79409
Contact: Dr. Jerry Parham

Region XX Education Service Center
1550 NE Loop 410
San Antonio, Texas 78267
Contact: Jane Francis

Project KEYE
Klein Independent School Dist.
7200 Spring Cypress Road
Spring, Texas 77379
Contact: Marge Patton

Vocational Evaluation Center
Odessa College
201 West University
Odessa, Texas 79762
Contact: Michael Raley

Improving Vocational Assessment

Procedures should be developed for improving the vocational assessment program. Follow-up must be implemented to determine if the assessment is accurately measuring the desired criteria. If the criteria change, the assessment must be revised. For instance, if a drafting curriculum is made more technical, then the reading and math requirements may be strengthened. A higher standard for entrance into that program could then be used. A particular curriculum modification, teaching technique, or support service could also allow the standard or criteria for a program to be lowered. At any rate, constant monitoring must be done to determine if the assessment program is evaluating accurately or the criteria for entrance into a program or job are changing.

Chapter 3

THE PROCESS OF VOCATIONAL ASSESSMENT

To help handicapped students fulfill their vocational potential, vocational assessment must be implemented systematically. Vocational assessment is designed to facilitate the effectiveness of career choice by providing continuing feedback concerning students' interests and abilities. Based upon such feedback, plans may be developed to develop student skills in areas related to career and vocational education. Student progress must be continually monitored, recommendations periodically updated, and new assessment questions concerning student abilities formulated.

Systematic Process for Vocational Assessment

Vocational assessment must be interactive, continuing, and instructive: therefore, it involves gathering information continuously. The flowchart in Figure 2 illustrates the yearly interactive relationship between vocational assessment and instruction. Assessment is used as the basis for planning instruction, which in turn provides a means by which additional assessment information is gathered. Figure 2 provides an alternative interpretation and approach to the Guidelines for Vocational Assessment developed by the Texas Education Agency. This figure attempts to provide a simple guide that school personnel may use to monitor their assessment process concerning a specific student.

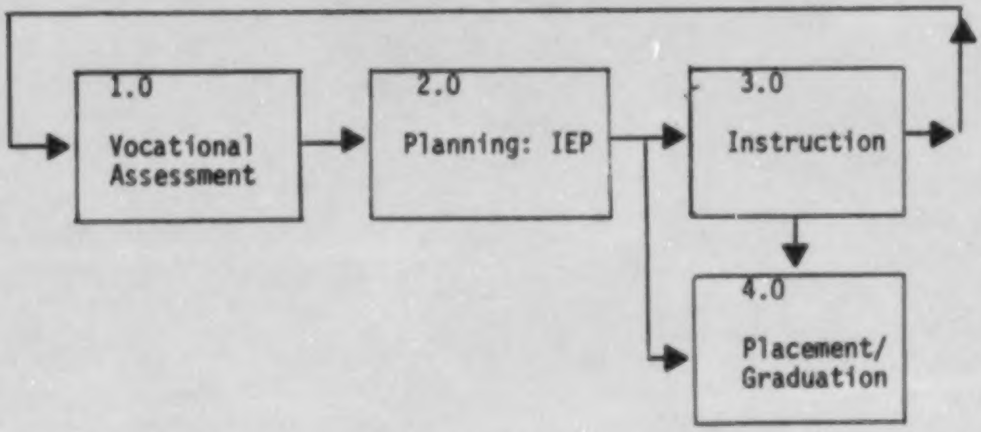

1.0
Vocational Assessment
2.0
Planning: IEP
3.0
Instruction
4.0
Placement/ Graduation

Figure 2

Yearly Process of Instruction/Assessment Interaction

The process described in this chapter assumes that Level I vocational assessment is implemented as a process beginning in grades 6 or 7 and continuing throughout secondary school. In Figure 3 below, the steps in vocational assessment (1.0) are depicted.

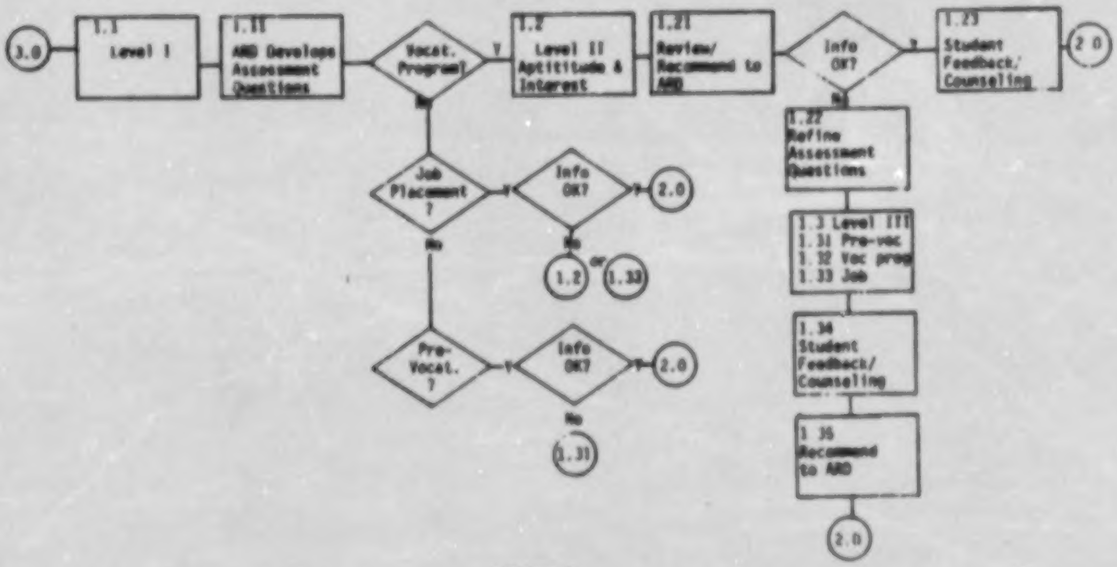

3.0
1.1
Level I
1.11
ARD Develops Assessment Questions
Vocat. Program?
Y
No
1.2
Level II Aptititude & Interest
1.21
Review/ Recommend to ARD
Info OK?
Y
1.23
Student Feedback/ Counseling
2.0
No
1.22
Refine Assessment Questions
1.3 Level III
1.31 Pre-voc
1.32 Voc prog
1.33 Job
1.34
Student Feedback/ Counseling
1.35
Recommend to ARD
2.0
Job Placement ?
Y
Info OK?
Y
2.0
No
1.2
or
1.33
No
Pre-Vocat. ?
Y
Info OK?
Y
2.0
No
1.31

Figure 3

1.0 Vocational Assessment

Generally, vocational assessment questions asked by the ARD committee can be categorized as related to pre-vocational and functional life skills, entrance into vocational education programs, or job placement. If vocational placement will be considered in the following year, Level II assessment (1.2) must be implemented. This information is reviewed (1.21) and, if the assessment is adequate, a student IEP will be developed (2.0). If it is not adequate, assessment questions are refined (1.22) and Level III vocational assessment (1.3) is implemented. Recommendations are made to the ARD committee (1.35) after the student is evaluated at Level III and a student IEP is developed (2.0). As job placement is being considered, a similar process takes place. If planning concerning the development of pre-vocational and living skills is considered inadequate, additional assessment may be done (1.31) or a student IEP may be developed (2.0) based upon information gathered through Level I assessment (1.1). Additional discussion is provided below concerning each of the three major areas of vocational assessment.

1.1: Using Existing Information (Level I)

Special education test data, parent and student interviews, and information gathered via the instructional program are available yearly for review by the ARD committee. If implemented correctly, Level I vocational assessment should require only a yearly summary or a collection of available assessment data. Procedures for implementing Level I assessment are described in Chapter 4.

1.11: ARD Committee Develops Assessment Questions

Specific assessment questions should be developed as a student progresses through the secondary curriculum. These assessment questions determine, to a large degree, the methods used in vocational assessment.

The identification of specific questions is a crucial part of vocational assessment. Unfortunately, the most common practice is simply to run all students through a common set of tests and determine if any of the information is useful. Too often, when this occurs, assessment is useless for planning instruction. One must consider the question: "What do we need to know about this student to recommend program placement, teaching strategies, curriculum modification, and support services?"

When specific questions are identified, it is crucial that the correct questions be asked. Careful judgement must be exercised when certain types of assessment questions are not considered due to the present program placement or disability type of the individual. Assumptions of lack of ability should be avoided unless based upon hard information. In many cases, individuals arbitrarily classified as unable to benefit from vocational programs may indeed show real promise if placed in a vocational education program with a modified curriculum.

Handicapped students must not be "tracked" into a particular program based upon disability classification or present program placement. The point of vocational assessment is to determine which program is best for a student and what services and teaching techniques will help a student succeed. Developing continuing assessment questions concerning a student's optimum functioning level and selecting methods to answer these questions will aid each student in career development. This competency-based approach to assessment will result in the most information for decision-making and will result in more effective IEP's for handicapped secondary students.

The yearly ARD committee must have an orderly and systematic method of identifying and documenting assessment questions and methods to answer them. A form (see Appendix E) may be used for this purpose. Assessment questions can be identified, methods assigned, and personnel assignments made to implement the various assessment techniques. Changes in the plan and a summary of results can also be recorded. This simple form provides a way of organizing and planning on at least a yearly basis a systematic process of vocational assessment that interacts with instruction. Additional discussion is provided below concerning each of the major areas of vocational assessment.

Pre-Vocational and Life Skills Training

The secondary school years are prime years in which handicapped students should develop a wide variety of skills needed for independent living. Pre-vocational and functional life skills may be the primary focus of instruction and vocational assessment in middle/junior high school. However, skill development in these areas, as well as specific job skills, will usually continue well into high school and very often beyond the public school years. Assessment of these skills should be continuous and concurrent with instruction.

Pre-vocational skills include occupational exploration and information, use of tools and materials, work behaviors, physical strength and dexterity, measuring skills, and vocational vocabulary. These skills may be developed through occupational orientation classes, industrial arts, special education prevocational classes, physical education classes, etc. Assessment of pre-vocational skills occurs primarily through a systematic collection of information from those involved in pre-vocational skills instruction (Level I). However, more intensive assessment related to pre-vocational skills may also be needed (Level III).

Functional life skills include skills needed for independent living: grooming, transportation, shopping, dressing, cooking, budgeting, observing safety practices, and maintaining health. Training in these skills has been advocated by many leaders in special education. However, the degree to which such functional living skills are included in the secondary curriculum varies greatly from school district to school district. Special education teachers and homemaking teachers will be most involved in teaching these skills. As indicated later, functional skills checklists may be used to monitor progress in these areas as an integral part of instruction. But more intensive assessment of functional living skills may be needed as part of Level III assessment.

Entrance Into Vocational Education Programs

The Guidelines for Vocational Assessment state that vocational assessment must be implemented prior to entrance into a vocational education program. The goal is to insure that students have access to vocational education programs and are placed in the correct program. In addition, suggestions for teaching techniques and curricular modifications in vocational classes are needed. For these outcomes to be achieved, information is needed concerning vocational interests and aptitudes, specific work skills, vocational learning styles, work behaviors, functional education skills, and physical skills.

Some of these skills are pre-vocational skills. Information concerning them may be gathered through Level I assessment as an integral part of the instructional program. However, specific assessment techniques will be needed to determine whether or not students meet identified entrance criteria and possess sufficient skills for success in specific vocational programs. Vocational aptitude and interest tests (Level II), work samples, and classroom try-outs can be used. The intensity of assessment will depend upon the nature of the assessment questions and the characteristics of the student.

Job Placement Recommendations

Vocational assessment may also be needed to aid in selecting the most appropriate job placement for a student. Information regarding entrance into vocational education programs is similar to the information needed for job placement. Additional assessment of job seeking skills may also be required. Functional living skills are especially important at this stage. Assessment for job placement will usually occur in grades 10-12. For some students, additional training through rehabilitation workshops, CETA programs, community colleges, or other programs may be indicated. Vocational assessment should provide information for recommendations regarding necessary services from other agencies following school. Rehabilitation counselors, and personnel as well as mental health/mental retardation facilities may be involved at this stage.

Three publications available from the Materials Development Center (see Appendix D) provide excellent guidelines for developing assessment questions and planning vocational assessment methods for individual students:

Thomas Korn. Vocational Evaluation Planning: A Model.
Paul McCray. The Individual Evaluation Plan. ($1.50)
Thomas Esser. Gathering Information for Evaluation Planning. ($2.00)

1.2: Aptitude and Interest Testing

Aptitude and interest tests that provide information concerning entrance into vocational education programs or job placement should be selected. Counselors, diagnosticians, teachers, or vocational assessment specialists can give these tests, which should be used to provide feedback and counseling (1.23) to students. However, if Level III vocational assessment is needed, student feedback and counseling may be delayed until this additional assessment is completed.

Review Aptitude and Interest Testing

According to the TEA *Guidelines*, Levels I and II vocational assessment must be provided for all handicapped students. Depending upon student needs, staff may decide that additional vocational assessment is needed. This decision is crucial. Vocational assessment procedures must not hinder the entrance of mildly handicapped students into vocational programs. Students cannot be denied access to vocational programs based upon invalid assessment techniques. Therefore, minimal assessment may be insufficient for some students, as standardized vocational aptitude and interests tests may have little validity for some handicapped students. If a student does poorly on a pencil-and-paper aptitude test, more comprehensive vocational assessment (Level III) will often be needed.

1.3: Comprehensive Vocational Assessment (Level III)

Comprehensive vocational assessment may include additional aptitude and interest testing, work samples, job try-outs, classroom try-outs, behavior observation in a controlled work setting, and vocational and career exploration. These methods can be implemented in existing classrooms with school resources, in an occupational exploration class, in a vocational evaluation center, or in a combination of these. The student should be involved in an intensive process of vocational exploration, guidance, and counseling as a component of comprehensive vocational assessment. This phase also focuses on questions related to pre-vocational and functional life skills as well as as questions related to entrance into vocational education programs or job placement.

2.0: Developing the Individualized Education Plan

When sufficient vocational assessment information is obtained, this information must be used to develop an individualized career development plan for each student. Decisions must be made regarding goals and objectives relating to programming for pre-vocational and functional life skills.

A Case Study

In order to illustrate the process of vocational assessment, a case study is offered. Note the interactions of the steps or phases.

John, a sixth grader, was labelled "mentally retarded" (IQ around 68). His reading level was second grade, and he was not very motivated to attend school. The ARD committee identified the following assessment questions:

1. In what is John interested?
2. What awareness does John have of jobs and their requirements?
3. What are John's functional life skills?
4. Could John learn to read better if it were associated with some vocational skill that he liked?
5. What are John's physical skills?

The ARD committee included in John's IEP the following educational services: reading instruction using concepts and vocabulary related to a vocational area of John's interest and physical education. Plans were made to collect assessment information as part of John's instruction in order to answer the above questions. In addition, a checklist of pre-vocational and functional life skills was based on input from the special education teacher, parents, and student. The special education teacher administered a vocational interest inventory.

Information was collected throughout the seventh grade. They found that John liked auto mechanics and building trades (but knew little about them); that he did not engage in much physical exercise because his parents would not let him leave the house; that John became excited about learning to read the names of tools and auto parts; and that John had few independent living skills. The physical education teacher identified some specific physical deficits.

The ARD committee reviewed this information at the end of the seventh grade. Based on this information, the ARD committee was able to plan a new instructional program and to identify additional assessment questions that needed to be answered. The IEP included: enrollment in an occupational information course; specific work on physical deficits in the physical education program; continuation of the vocational reading program; and functional life skills training through joint efforts by the special education teacher and parents. Additional assessment questions were identified:

1. Should John enter a VEH program in Small Engine Repair that is offered in the ninth grade at his school?
2. What academic skills does John need to have prior to vocational training?
3. How well is John learning functional living skills?
4. What is a realistic future occupation for John?

Several methods were used to answer these assessment questions during the eighth grade. The vocational assessment specialist gathered information regarding the curriculum and prerequisite skills for the Small Engine Repair program and for the auto mechanics program. John was given a vocational aptitude test and was also assessed on a small engine work sample. This work sample had been jointly developed by the vocational teacher and the vocational assessment specialist to assess student interest in and ability to learn small engine repair. The report written by the vocational assessment specialist indicated that John did poorly on the written vocational aptitude test, but showed on the work sample great interest in and adequate potential for semi-skilled work associated with small engines. An analysis of the requirements of the auto mechanics program showed that measuring skills and functional reading skills are important. The work sample and other information indicated that John was deficient in these areas. Information was also gathered based upon John's performance in his classes through the use of simple competency-based checklists. According to this information on John's performance in class, he maintained an interest in auto mechanics, improved his reading to a fourth grade level, and improved his physical stamina.

At the end of the eighth grade, the ARD committee reviewed the information and recommended placement in the VEH program. The VEH teacher and the special education teacher worked out a combined program for increasing measuring skills. The special education teacher and parents continued to work on functional living skills.

John stayed in the VEH small engine repair program through the ninth and tenth grades. In the tenth grade, John entered a special education class specifically designed to teach independent living skills. The vocational teacher kept yearly, competency-based assessment checklists of John's progress. A major question for the tenth grade was: "Can John enter the regular auto mechanics program in the eleventh grade?" Since John was in the small engine program, the ARD committee felt that a recommendation based on systematic observation by the vocational teacher could be used as a basis for recommendations. The vocational assessment specialist worked with the vocational teacher in assessing skills that John would need in the regular auto mechanics program.

The ARD committee met in the tenth grade. Based on the recommendation of the vocational teacher, John was admitted to the auto mechanics program in the eleventh grade. While it was clear that John would not be a master mechanic, the vocational teacher felt that John could be trained as a brake specialist, and a modified program was developed for him. The special education personnel and the auto mechanics teacher developed a cooperative program in which the special education teacher tutored John in auto mechanics studies and helped administer certain tests that he had difficulty reading, etc. John made progress and upon graduation was employed as a brake specialist in a chain operation.

Chapter 4

BASIC VOCATIONAL ASSESSMENT:
USING EXISTING INFORMATION (LEVEL I)

The Guidelines for Vocational Assessment developed by the Texas Education Agency describe Level I vocational assessment as a process of gathering and analyzing existing information in terms of its implications for vocational programming. According to this document, five types of data are to be collected: (1) special education data; (2) informal interview with the student; (3) informal conference or interview with the parents; (4) aptitude, achievement, ability information; and (5) cumulative records. These Guidelines indicate that the local school district should appoint a special education teacher responsible for collection of this information. This person should have some knowledge of the world of work and the needs of handicapped studnts. Utilization of existing information by this person will be considered in the following categories: (1) special education test data; (2) informal vocational assessment as a part of instruction; and (3) student and parent interviews.

Special Education Test Data

As part of the child-centered special education process, individual assessment must be implemented. This assessment is performed in three stages: (1) a determination of physical, mental, and/or emotional conditions; (2) a determination of educational performance levels; and (3) the identification of specific competencies and recommended instructional and related services needed.

Assessment information gathered by the educational diagnostician and others is invaluable data that can be used in developing vocational and career development plans for handicapped students. However, this information must be interpreted in vocationally relevant terms. This is possible when those involved in vocational assessment are thoroughly familiar with both the requirements of jobs and vocational programs and the means by which programs and jobs may be modified to meet the needs of handicapped persons. (Refer to Chapter 2 for a discussion of job and training analyses and publications that aid in this process.) Therefore, specific use of most special education assessment data must be implemented on the local level by a person trained in vocational assessment based on knowledge of local training and employment options. Discussion is provided below concerning medical, intellectual, achievement, and functional skill assessment. Additional information concerning the use of psychological tests in vocational evaluation can be gained from the following publications, which are available from the Materials Development Center (see Appendix D):

Psychological Testing in Vocational Evaluation, 1978; and
The Use of Psychological Tests with the Severely Disabled, 1976.

Medical Information

Medical information may be very important for planning a vocational program for a student. Medical data is most often used in identifying jobs or training situations which would be hazardous for a student. A student with uncontrolled epilepsy, for instance, should not be placed in training or jobs using potentially dangerous machinery. The following uses of medical information are especially important:

1. identifying conditions which may or may not be apparent and which would limit vocational pursuits (e.g., multiple sclerosis, epilepsy,

blindness, and heart problems);

2. determining physical tolerances related to disabilities;
3. identifying conditions which may require modification in the training process (e.g., deafness, visual impairments); and
4. identifying drugs that may cause behavior change, drowsiness, or side effects.

The Dictionary of Occupational Titles and Project VESEP (see Chapter 2) can aid in identifying general physical requirements of training and employment. The DOT provides information concerning physical requirements of jobs and information concerning work environments. However, this information provides only rough national guidelines and local differences are possible. Also, job modifications on the part of employers may radically alter the physical requirements.

While medical information is very important, it must be used judiciously. Job modifications and changes in training processes make it possible for a student to be trained and employed in an area which might at first seem unlikely. Rehabilitation engineers, like those at Project IMPACT in San Antonio, can sometimes help in designing job modifications for the physically handicapped.

Intellectual Assessment

Intellectual assessment also has important implications for vocational programming. However, a caution must be noted at the outset. Intelligence test scores (IQ's) must not be used as entrance criteria for vocational education programs. Rather, emphasis should be placed upon possession of identified prerequisite skills (e.g., ability to measure 1/16 inch). Students who score low on intelligence tests may perform surprisingly well when tasks are associated with interesting vocational goals.

One way to use information from intelligence tests is to relate it to the skill ratings of jobs used in the Dictionary of Occupational Titles. The sub-scales of the Wechsler tests can be especially useful in this process. For instance, intelligence tests could be used to gain a rough estimate of an individual's functioning level relative to the DOT categories such as (G) general learning ability, (V) verbal aptitude, (N) numerical ability, and (F) fine motor coordination.

Information gained from behavioral observations during testing can also be useful in determining whether or not a student meets entrance criteria for vocational programs. For instance, if the ability to transcribe data quickly and accurately has been identified as important for clerical training, a student's score on the Wechsler digit-symbol subtest provides useful information in determining student skills in this area.

Academic Assessment

Reading, writing, arithmetic, and language skills are required, to some degree, on most jobs. However, the expected degree of proficiency in these skills required by occupations varies significantly. Local schools should determine the degree and type of proficiency needed for different vocational programs. The DOT specifies desired educational levels and aptitudes.

Most academic achievement results are norm-based and expressed in terms of percentiles or grade equivalents. Grade equivalence scores are especially useful in comparing student abilities with the grade equivalent reading level of texts and other instructional materials. Specific information concerning reading skills and deficits must be secured in some cases. Tests such as the Peabody Individual Achievement Test (PIAT) can provide some help. An increasing number of reading programs relate reading instruction directly to vocational training. Such programs can provide information about student progress that can be especially relevant to vocational assessment.

Functional Skill Assessments

Tests and assessment instruments have been developed to assess adaptive behaviors, functional life skills, and functional academic skills. While such tests have not been used extensively in the past by diagnosticians, they are appropriate for working with secondary students. A few of the functional skill assessments are briefly reviewed below.

Social and Prevocational Information Battery (SPIB).

Publishers Test Service
CTB/McGraw-Hill
2500 Garden Road
Monterey, California 93940

This test is designed to assess functional skills in the following nine areas: hygiene and grooming, functional signs, job-related behavior, home management, health care, job-seeking skills, budgeting, banking, and purchasing habits. Test questions are read to the student. A special form (T) is available for TMR students.

Brigance Inventory of Essential Skills--Secondary.

Curriculum Associates, Inc.
5 Esquire Road
North Billerica, Massachusetts 01862

This assessment device is designed for use with TMR secondary students and provides criterion-referenced assessment of the following skills: basic reading, language, math, food and clothing, money and finance, travel and transportation, and communication and telephone skills.

Everyday Skills Tests.

CTB/McGraw-Hill
Del Monte Research Park
Monterey, California 93940

This is a reading and math test with content based on the reading of labels, store directions, signs, want ads, schedules, and forms.

Street Survival Skills Questionnaire (SSSQ).

Common Market Press
P.O. Box 45628
Dallas, Texas 75245

This test assesses functional skills of developmentally disabled students in the following areas: basic concepts, functional signs, tool identification and use, domestic management, health, first aid and safety, public services, time, money, and measurement. The SSSQ consists of nine separate booklets, each containing 24 questions.

AAMD Adaptive Behavior Scale.

Edmark Associates
P.O. Box 3903
Bellevue, Washington 98009

This scale assesses the adaptive behavior of persons with mental disabilities. An informant provides data concerning student abilities and behaviors in a number of functional areas.

Informal Vocational Assessment as Part of Instruction

If the curriculum and procedures are properly arranged, on-going vocational assessment information can be gathered as a student progresses through the curriculum. This can decrease the need for more expensive assessment and provide information useful in improving IEP's. However, to effectively gather and use information, a system with which teachers can easily record and report useful information is vital. A routine method should be devised by which teachers and staff can record vocationally relevant information and route it to the student's file. This information should, of course, be periodically reviewed and used in developing IEP's.

Competency-Based Vocational Skill Assessment

In any vocational program, students are being prepared for various occupations. Each occupation requires certain skills and/or competencies. A list of these competencies can be developed for each vocational program. Records concerning a student's progress can be kept. Competency identification and application are discussed in vocational curriculum development courses in vocational education.

Basic Vocational Skills

Several informal assessment devices have been developed that assess basic skills related to vocational programs. The first that is reviewed below is Project VESEP, which includes a checklist of "pre-vocational enabling skills" associated with success in vocational programs. This tool is best used by a special education teacher.

Vocational Education-Special Education Project II (VESEP II).

Career Education Resources
3rd Floor, Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Materials from this project can be used as the basis for a total vocational development program for handicapped students in secondary schools. The assessment materials provide a checklist of pre-vocational enabling skills divided into general areas within Table 8.

Table 8

Pre-Vocational Enabling Skills

Skills	Description
Quantitative and numerical	Ability to count, record, perform basic math, and measure
Verbal	Ability to communicate in written and spoken forms
Cognitive	Ability to follow instructions, remember, sequence information, plan, organize, and make decisions
Perceptual	Ability to accurately perceive colors, forms, space, sounds, and odors
Language	Ability to listen, understand, and express oneself
Psychomotor and physical	Ability to coordinate and perform physical movements
Social	Ability to interact with others and act independently
Occupational interests and aptitudes	Ability to determine occupational likes and dislikes and to adjust to changing work situations.

Occupational training clusters for handicapped students were identified and analyzed to determine the enabling skills needed to perform various tasks in the training curriculum. A checklist of pre-vocational enabling skills can be used by a teacher and other personnel who work with a student. The student's profile can be compared with the requirements of the various vocational training programs in which a student shows interest to suggest placement in vocational education programs and to suggest training in pre-vocational enabling skills.

Another program developed means to very directly associate student skills with vocational education programs. Since the materials were developed in Michigan, they may require some modification for use in other states.

Assessment of Basic Vocational Related Skills.

Nancy Hartley
Vocational Teacher Education
University of Northern Colorado
Greeley, Colorado 80639

This project developed sixteen modules for use by vocational teachers assessing the following skill areas for special needs students: (1) academic skills; (2) motor skills; and (3) vocational interest and awareness. Sixteen informal assessment modules were developed for use by vocational teachers in the following areas: welding, sheet metal. agriculture, graphic arts. woodworking, automotive, auto body, drafting, health occupations, world of work, food preparation, child care; distributive education, electricity, horticulture, and office occupations. Each manual costs $2.75. A checklist of vocationally related skills developed in the project is available from the University of Northern Colorado.

Work Behaviors and Attitudes

A variety of checklists and behavioral rating scales have been developed to assess the work-related behaviors of persons with special needs. Most are designed to be completed as part of situational assessment in rehabilitation workshops in on-the-job try-outs. However, these checklists can be useful in documenting behavioral information from a wide variety of classes--especially vocational or industrial arts. Two sample rating forms are included in Appendix F. While teachers and schools can develop their own rating forms, many have been developed in research projects or marketed through test companies. One of these is the Vocational Behavior Checklist (VBC), available from:

Publications Department
West Virginia University
Vocational Research and Training Center
1223 Myers Avenue
Dunbar, West Virginia 25064

The VBC was developed through a grant from the Rehabilitation Services Administration to assess vocational behaviors of handicapped persons. Two hundred checklists were reviewed and the most effective style and items were chosen for the VBC. The VBC contains 339 skills in the following areas: (1) pre-vocational; (2) job-seeking; (3) interview; (4) job-related; and (5) union-financial-security. This checklist is an excellent source for providing assessment as well as for developing a curriculum for work-related behaviors.

Another instrument, the San Francisco Vocational Competency Scale, is used to assess work behaviors. It is available from:

The Psychological Corporation
304 East 45th Street
New York, New York 10017

This vocational rating scale was designed for use with mentally retarded persons and includes thirty statements concerning vocational behavior. For example, Item 28 measures:

REACTION TO ABSENCE OF SUPERVISION

When left unsupervised,

1- he stops working

2- there is a substantial decrease in his productivity

3- there is a moderate decrease in his productivity

4- there is a small decrease in his productivity

5- there is no decrease in his productivity

Such rating forms can be developed or used with a wide variety of classes in the secondary school. A great deal of information can be gained concerning student characteristics in these environments. If these ratings are tracked throughout secondary school and yearly summarized, trends of student development can be traced and student problem areas and strengths are easily identified.

Learning Styles

Much attention has been given in recent years to the identification of the learning styles of individuals. Teachers and counselors may use several instruments in helping them determine the ways that students learn the best. One system called C.I.T.E. is designed for use by teachers. Information concerning this simple system can be obtained in the following publication:

A.J. Babich et al. Administration of the C.I.T.E. Learning Styles Instrument. Wichita, Kansas: Center for Innovative Teaching Experiences, Murdock Teacher Center, Wichita Public Schools, 1976.

In addition, instruments related to more formal cognitive style mapping may be used. Mountain View Community College, Dallas, Texas, offers training in cognitive assessment and learning styles.

Functional Living and Pre-Vocational Skills

A number of curricula and progress checklists have been developed to assess student skills for independent functioning in the community. These include pre-vocational and functional life skills. Some of these curricula and progress checklists are briefly reviewed here.

Life Centered Career Education: A Competency-Based Approach.

Publications Department
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
(Cost: $12.50)

This curriculum provides a competency listing of skills needed by individuals to function effectively in adult society. The twenty-two competencies or skills are organized into the following broad areas: (1) daily living skills, (2) personal-social skills, and (3) occupational guidance and preparation. A Competency Checklist is provided that allows identification of student skills, of progress monitoring, and of the IEP development.

Camelot Behavioral Checklist.

Camelot Behavioral Systems
P.O. Box 3447
Lawrence, Kansas 66044

This checklist provides an assessment of student skills and needs in ten categories: (1) self help, (2) physical development, (3) home duties, (4) vocational behavior, (5) economic behavior, (6) independent travel, (7) numerical skills, (8) communication skills, (9) social behaviors, and (10) responsibility. The individual checks "can do" or "needs training" beside each of 339 skills. A Skill Acquisition Program Bibliography provides information useful in developing a curriculum for teaching thses skills. The background information may be gained in various ways--e.g., through interviews with parents, by teachers' completing relevant portions, and through direct observation.

Skills to Achieve Independent Living (SAIL).

Melton Peninsula
Dallas, Texas
(Cost: $295.00/total curriculum)

This is a comprehensive independent living skills program for mentally handicapped persons. The curriculum and accompanying checklist are divided into the following areas: (1) personal management, (2) community access, (3) home management, and (4) applied academics. Four checklists can be used for assessment. A "Sail Progress Profile" can be used to summarize and monitor progress in various areas of the curriculum.

SCOR Curriculum: Independent Living Skills Assessment System.

Copy Shop
Casa Grande Center
235 Casa Grande Road
Petaluma, California 94952
(Cost: $20.00)

This is an assessment system designed for use in recording, planning, and reporting client progress. The system provides an objective, required materials, and performance criteria for assessing over 900 target skills both prior to and during the instructional process. Areas covered include personal management, social development, household management, academics, leisure time, job readiness, and work skills.

Student and Parent Interviews

Vocational assessment as conceived in this manual is best implemented as a guidance process in which both professionals and students learn about student abilities as they relate to training and jobs. Vocational assessment is much more than "testing" done in a sterile environment. It is a process by which students learn about jobs and make plans for the career development allowed by their abilities. Such a process assumes significant student input, feedback to the student concerning performance, and parental input concerning student abilities and interests.

Student Interviews

Student interviews can be conducted as part of Level I assessment. Given the on-going nature of vocational assessment, however, some of the interview questions may be asked again. Student interests may change from the seventh to the ninth grades, particularly if the student is involved in occupational exploration.

Questions drawn from interview formats can be used as guides to elicit useful information from students. For example, if a students says that he is interested in auto mechanics, the interviewer may want to ask other questions. "What do you like about auto mechanics?" "Is someone you know a car mechanic?"

A simple form developed by Project KEYE in Spring, Texas, called a Vocational Planning Guide (see Appendix G), may be used by personnel to structure a simple interview process. A student interview format developed by personnel at the Vocational Evaluation Center, Region XX Educational Service Center, San Antonio, Texas, is included as Appendix H.

Parent Interviews

Similar guidelines apply to interviews with parents. The information that parents can provide is vitally important. Not only do parents know a great deal about a student's abilities and needs, but the attitudes of parents toward vocational education and future employment will have great impact on vocational planning for the student. Involving parents in the vocational assessment and planning process will aid in securing parental support for recommendations that result from the assessment.

Parents may be interviewed at the school or in the home. An interviewer may use an actual form or an interview guide. Questions about the student's health, friends, leisure time, responsibilities, strengths, needs, and educational plans should be asked.

Interviewing parents during a home visit will facilitate involvement and provide valuable information. The interviewer can gain information and insights into family dynamics. Observations concerning the size, neatness, and style of the home may provide useful information for understanding a student. An observer can also note interactions between family members--

especially between family members and the handicapped student.

Staff Involved in Interview

The special education teacher is probably the most appropriate person to perform and document interviews with students and parents. The teacher knows the student and probably has the best rapport with the parents. However, interviews conducted by other personnel may be useful as well. A counselor or vocational assessment specialist may be able to secure information concerning student interests and attitudes because they are not in daily contact with the student and, therefore, may represent less psychological threat. If referrals are made to a vocational evaluation center for Level III vocational assessment, onsite interviews with students can be compared with teacher interviews. Sometimes problems in student motivation may be discovered via this process.

Chapter 5

BASIC VOCATIONAL ASSESSMENT:
APTITUDE AND INTEREST ASSESSMENT (LEVEL II)

Introduction

The TEA Guidelines state that all handicapped students must minimally receive an assessment of vocational aptitudes and interests. This assessment may be done by teachers, diagnosticians, counselors, or a combination of these individuals (see Chapter 2). The vocational counselor, educational diagnostician, and vocational assessment specialist must review test results and Level I assessment information and decide whether or not additional information is needed. If so, comprehensive assessment (Level III) is scheduled on approval of the ARD committee. If additional assessment is not needed, a vocational ARD committee meeting is scheduled. The ARD committee can also schedule concurrently aptitude and interest testing and more comprehensive vocational assessment to occur at the same time based on the perceived needs of individual students. Such a procedure would simplify the steps of the vocational assessment process. In this chapter, information is provided concerning aptitude and interest testing.

Considerations for Aptitude and Interest Assessment

In implementing aptitude and interest assessment, several considerations must occur. The test administrator must select and train staff, select appropriate evaluation instruments, and schedule assessments.

Scheduling

Each year, the ARD committee will review student assessment information and will recommend aptitude and interest assessment when job or training program placement is being considered for selected students. Aptitude and interest tests may be scheduled and administered in a variety of ways, including:

1. as part of comprehensive vocational assessment (Level III);
2. in conjunction with the educational assessment normally done by educational diagnosticians;
3. in a special education classroom as a group; and
4. as part of an occupational orientation or special occupational exploration course.

The time and setting for assessment will depend upon the tests that are selected for use. Aptitude and interest tests and information concerning their administration are identified and discussed in the paragraphs following.

Aptitude Tests

Although they are difficult to define, we generally think of aptitudes as innate abilities that help students learn tasks when they are given the opportunity to do so. It should be noted, however, that aptitudes can also give information about the ease with which one learns certain information or tasks. Aptitude testing does not necessarily tell us if a person can learn (although sometimes it may). For example, if a student scores low on a test of mechanical aptitude, this does not mean that the student cannot learn to be an automobile mechanic. It may mean that the student has to work harder and may not do quite as well as a student who possesses mechanical aptitude. The student who is sufficiently motivated may become employable as a mechanic in spite of a low aptitude. Distinguishing between aptitudes and abilities to learn is especially important when assessing handicapped students.

All jobs require abilities and aptitudes in a number of different areas. The Dictionary of Occupational Titles (see Chapter 2) defines eleven aptitudes and relates these to different job clusters. For example, mechanical aptitude, clerical aptitude, spatial perception, and manual dexterity are aptitudes. Therefore, selection of a test must be related to types of aptitudes to be assessed. Assessment of aptitudes can be accomplished with the following techniques: (1) multiple aptitude paper-and-pencil tests; (2) single aptitude tests; and (3) work samples. Usually, when aptitude tests are discussed, one visualizes a paper-and-pencil test; however, work samples are being used increasingly with special needs persons because the samples appear to more validly assess some student abilities and aptitudes.

Multiple aptitude batteries attempt to assess, in one testing situation, a number of aptitudes. In schools, the Armed Services Vocational Aptitude Battery (ASVAB) is the most popular multiple aptitude battery. The General Aptitude Test Battery (GATB) and the Differential Aptitude Test (DAT), however, are usually administered as vocational aptitude tests. Extreme caution should be taken, however, in using the results of any of these tests with handicapped persons. The paper-and-pencil format of such tests and their emphasis on verbal skills may provide an invalid assessment of the abilities of handicapped students. Paper-and-pencil aptitude tests may serve as screening devices for the mildly handicapped, but additional assessment is usually necessary with more severely handicapped individuals. Work samples (discussed in Chapter 7) provide a more accurate assessment of the aptitude of handicapped individuals.

Vocational Interest Assessment

Vocational interest tests have many of the same limitations as aptitude tests. One of the greatest difficulties in using these tests with handicapped students is their lack of career awareness. It is very difficult for a student to indicate interest in a job if little is known about the world of work. For this reason, it is useful to combine vocational assessment and occupational exploration.

Vocational interest assessment should be repeated at intervals throughout the educational process. If education is accomplishing what it should, neither vocational interests nor abilities are going to remain stable throughout secondary school as students discover occupations and develop new skills.

Vocational interest tests can be divided into the verbal interest inventories and the picture interest inventories. The verbal interest inventories usually provide written listings of jobs or activities for which a student indicates degrees of preference. Picture interest inventories which rely on pictures of people performing activities are especially useful for handicapped students. While some picture interest inventories rely on an audiovisual format, others present pictures in book form, e.g., the GEIST and WRIOT. A summary of useful vocational aptitude and interest tests is provided in Appendix I.

In addition to testing, one or more of the following methods may be employed to collect information related to vocational interests:

1. interviewing parents;
2. interviewing students;
3. touring local vocational programs and/or jobs and getting student feedback on what they see; and
4. exploring occupations via work samples and career exploration programs.

Timing of Comprehensive Vocational Assessment

If Basic Vocational Assessment (Levels I and II) is implemented separately from Comprehensive Vocational Assessment (Level III), the ARD committee must decide if additional assessment is needed. This decision is crucial. The point of providing vocational assessment is to assess the skills, interests, and abilities of handicapped students and to place them in programs that will aid them in achieving their optimum vocational potentials. If Comprehensive Vocational Assessment (Level III) is needed to assess student abilities, then it should definitely be provided. On the other hand, elaborate assessment is neither needed nor desirable with students who are recommended for placement in vocational education programs based on Basic Vocational Assessment information.

According to the TEA Guidelines, the vocational counselor and educational diagnostician will usually review Basic Vocational Assessment information to determine what assessment is needed. A vocational assessment specialist may also be involved in the process of synthesizing and interpreting (1) scores on the aptitude and interest tests, (2) information gathered through the instructional program, (3) special education test data, and (4) student and parent interviews.

If this information points clearly to a given vocational option, then Basic Vocational Assessment may be sufficient. Additional assessment is needed if scores on the aptitude tests are very low but the special education teacher or parent believes a student could succeed in a vocational program, or if available information reveals virtually no vocational strengths. For the latter case, it is not clear what type of vocational program is needed.

Once the vocational assessment specialist, vocational counselor, and educational diagnostician determine that additional assessment is needed, recommendations must be reported to the ARD committee. Comprehensive vocational assessment can then be scheduled. If aptitude and interest assessment are incorporated into the comprehensive assessment process, this extra step is unnecessary. It is vital that vocational assessment (Levels II and III) be scheduled so that assessment information can be gathered in time for entrance of the student into a desired vocational program.

Student Counseling

Vocational assessment has two primary purposes, to assist professionals in working with students and to aid students in increasing their understanding of themselves in relation to the world of work. Vocational assessment information must be used in the guidance process with students. As information is gathered through special education test data, interviews, and the instructional program, feedback should be given to the student concerning strengths and needs. When aptitude and interest tests are given, the results should be shared with students prior to decisions concerning placement or decisions concerning the need for more assessment information. If vocational assessment is used as an integral part of student vocational guidance, then career development will be greatly enhanced.

Basic Vocational Assessment Report

If a student receives only a Basic Vocational Assessment, the results of this vocational assessment must be documented in a report. If Comprehensive Vocational Assessment (Level III) is provided, the Basic Vocational Assessment (Levels I and II) information should be combined with comprehensive assessment information into a single vocational assessment report. The Basic Vocational Assessment report should include the following types of information:

1. student identification information;
2. vocational assessment questions;
3. summary of applicable special education test data;
4. summary of parent and student interviews;
5. summary of information gathered as part of the instructional program; and
6. aptitude and interest test information to include
   a. name of individual giving test(s),
   b. date(s) of testing,
   c. location of testing,
   d. name(s) of test(s) used,
   e. results of testing, and
   f. interpretation of results.

The TEA Guidelines state that one person will be assigned responsibility for compiling the written report. While no specific individuals are mentioned, the vocational assessment specialist, educational diagnostician, or vocational counselor would appear most appropriate for this role. An exemplary format is included in Appendix J as an aid in developing the required report.

Chapter 6

COMPREHENSIVE VOCATIONAL ASSESSMENT (LEVEL III)

Introduction

A summary of the development of the field of vocational evaluation was provided in Chapter 1. Vocational evaluation--or Comprehensive Vocational Assessment--developed as a field because many of the techniques used in Basic Vocational Assessment (Levels I and II) have simply not provided sufficient assessment of the vocational abilities and needs of persons with special requirements. Many handicapped students will need comprehensive vocational assessment to aid in developing appropriate Individualized Education Plans. This chapter will provide information designed to help schools develop or obtain Comprehensive Vocational Assessment services.

Administrative Arrangements

When developing arrangements for Comprehensive Vocational Assessment (Level III), an administrative model must be selected. There are several potential options, which include:

1. special education class;
2. occupational exploration class;
3. integrated assessment system;
4. school-based vocational assessment center;
5. cooperative assessment center with other schools or agencies;
6. rehabilitation facility; and
7. mobile assessment center.

Unique combinations of these various options may be used. Each of these administrative arrangements is briefly described below, and advantages and disadvantages are discussed. In Chapter 8, a brief description of some of the more successful vocational assessment/evaluation programs in the state are given.

Assessment in the Special Education Classroom

Vocational assessment may be initiated in the special education classroom. In this model, the special education teacher selects, administers, and scores tests in addition to other responsibilities. This model is best implemented in a pre-vocational class in which the teacher focuses on functional living skills. In addition, the teacher would need assistance from educational diagnosticians, vocational counselors, and other personnel. If vocational assessment is implemented this way, a student would necessarily be involved in assessment a short time daily over a period of several weeks.

It is recommended that the special education classroom be used as a source of vocational information but that it not be the primary place in which vocational assessment occurs. In a recent survey, educators and vocational evaluators in Texas found this arrangement to be among the least desirable.

Advantages for implementing vocational assessment primarily in the special education classroom include: (1) additional staff does not need to be hired; (2) the teacher is most familiar with the students; and (3) the teacher can focus on more functionally relevant skills.

Disadvantages include the following: (1) teachers do not have the time to implement comprehensive vocational assesment in their classes; (2) teachers will need training in vocational assessment; (3) the student may equate vocational assessment with "school work" and may, therefore, perform more poorly; and (4) it is virtually impossible to implement vocational assessment in a work-like environment.

Occupational Exploration Class

The occupational exploration class, available in many school districts, provides an excellent opportunity for vocational assessment. In this model, a student would explore occupations and learn about skills and abilities to function in those jobs by means of vocational assessment. Students use occupational information resources, visit worksites, and explore careers through simulations and work samples.

An occupational exploration class can be implemented as a locally designed special education elective or as part of occupational orientation as defined by the Department of Occupational Education and Technology. If this approach is used, arrangements for flexible scheduling must be made since students may need some vocational assessment at different times throughout secondary school. In addition, special training will be needed by the teacher implementing the assessments. Presently, occupational orientation teachers receive training in occupational information and exploration techniques but receive only minimal training in vocational assessment techniques and the needs of handicapped persons.

Advantages for this model include:

1. this type of class may already exist in the school curriculum;
2. research indicates that such a class may provide optimum opportunities for student growth and motivation;
3. occupational exploration classes provide good opportunities for assessment in work-like environments; and
4. trained vocational evaluators can meet certification standards for

occupational orientation teachers.

Disadvantages include:

1. scheduling needs of the class may limit flexibility in providing student assessment at various times throughout secondary school;
2. additional staff training is often needed; and
3. scheduling assessment as a class in school may make assessment seem like "just more school work" to the student and fail to provide sufficient motivation or an adequate change from the regular school routine to adequately assess normal work behaviors.

Integrated Vocational Assessment

In this arrangement, vocational assessment would primarily be implemented in existing school resources. For example, work samples and classroom try-outs might be administered in vocational classrooms. Job try-outs could be implemented in school or community jobs. Dexterity, coordination, and interest testing can occur in special education classrooms or other available school facilities. To make this option work, a vocational assessment specialist should be designated and trained to give some vocational assessment tests and coordinate the use of existing school resources. However, a wide range of school personnel--vocational teachers, special education teachers, vocational counselors, educational diagnosticians--would provide input at all levels of vocational assessment (Levels I, II, and III).

Integrated vocational assessment may be scheduled as a class over several weeks with four to five students at a time or as an intensive outside experience (one to two weeks) in which several students (four to five at one time per assessment specialist) are involved for one-half day to a full day.

Advantages of this option include:

1. vocational assessment can be molded to meet the needs of the local

school system;

2. assessment can be implemented as an integral part of the curriculum;
3. less money may be required for renovating and equipping special facilities;
4. a local expert in vocational evaluation would be available to a school; and
5. a wide range of school personnel could be more easily involved in this option.

Disadvantages of this option include:

1. scheduling of vocational assessment may be difficult;
2. the lack of a specific location for vocational assessment may weaken the degree to which a student sees the process as an intensive guidance effort; and
3. a great degree of school-wide involvement and commitment would be required.

School-Based Assessment Center

An assessment center may be developed within a school where testing, counseling, and some work samples are located in one place on a continuing basis. Vocational assessment/evaluation centers have been the most common administrative arrangement for vocational assessment of handicapped persons. Developing a vocational assessment center in the school will involve:

1. acquiring trained vocational assessment specialists;
2. acquiring a large room that can be used on an on-going basis;
3. arranging transportation to and from the assessment center; and
4. purchasing or developing tests, work samples, and other assessment materials.

Vocational assessment centers involve a significant investment of resources. The development of an assessment center by a local education agency must be justified in terms of numbers of students to be served. In most cases, a minimum of 100 students per year should be involved in a full week of vocational assessment before development of a separate vocational evaluation center is justified. Usually, large, urban Local Education Agencies (LEA's) will have the need and resources to develop their own separate center. For smaller schools, cooperative efforts with other agencies such as CETA, vocational rehabilitation, and community colleges may provide the best option. Advantages of the school-based option include:

1. the school has total administrative control of the assessment center and can develop the center to meet its needs; and
2. teachers, counselors, etc., can easily identify with this assessment center.

Disadvantages of this option include:

1. substantial resources will be required to initiate a school-based vocational evaluation center;
2. lack of cooperation with other agencies can increase the cost to the school and may reduce the degree of linkage with other agency services; and
3. transportation problems often exist.

Cooperative Community or Regional Vocational Evaluation Centers

Schools and other agencies may wish to pool their resources to develop comprehensive vocational assessment centers that are capable of serving a wide range of populations. These centers can provide assessment services for those with special needs in a given community or regional area. Depending upon the resources in an area, cooperative arrangements could be made with the following types of organizations: other school districts; rehabilitation facilities; Mental Health/Mental Retardation Community Centers; Education Service Centers; community colleges; CETA; and state schools and hospitals.

At least two cooperative funding arrangements can be made. Services can be purchased on a per student basis from an existing program. The school can provide some personnel and fiscal resources to be pooled with those of another agency. Agreements concerning administrative responsibility would need to be carefully considered.

If this arrangement is used, schools must make special efforts to provide detailed information concerning their vocational and special education programs to those working at the assessment center. Effective liaison between the school and assessment center is also necessary. Advantages of this option include:

1. cooperative pooling of resources can provide a more effective assessment than would be possible through the resources of any one agency;
2. a multi-agency assessment center can help handicapped students take advantage of needed services from other agencies;
3. the high visibility of such a center may lead to effective linkages with business and industry; and
4. assessment occurring away from the school may help the student see it as "work," thus facilitating increased motivation and more valid assessment.

Disadvantages of this option include:

1. potential complexities in establishing adequate inter-agency agreements;
2. transportation complications may occur; and

3. vocational assessment specialists in such a center may be unfamiliar with the specific program of the local school.

Vocational Evaluation in Rehabilitation Facilities

Comprehensive vocational assessment of handicapped persons has previously been implemented primarily in facilities associated with vocational rehabilitation. Vocational evaluation centers are located in most rehabilitation centers throughout the state. Evaluation centers are associated with sheltered workshops (e.g., Goodwill, MHMR, Lighthouse for the Blind, etc.), and medical rehabilitation facilities (e.g., Easter Seal), or exist as free-standing vocational evaluation centers--particularly the center at North Texas State University and the center in Harlingen, Texas.

These centers are staffed by highly qualified and trained personnel and possess specialized equipment and materials for use in Comprehensive Vocational Assessment (Level III). Considerable federal and state vocational rehabilitation funds have been expended over the last few years in developing these programs.

The Texas Rehabilitation Commission has developed standards for services, including vocational evaluation, that are delivered in rehabilitation facilities. A copy of these standards may be obtained from:

Texas Rehabilitation Commission
118 E. Riverside
Austin, Texas 78704

According to these standards, vocational evaluation centers are classified as either Level I or Level II. Generally, classification as Level I indicates a program that meets higher standards, especially in terms of staff qualifications.

Vocational evaluation for handicapped students may be obtained through rehabilitation facilities in several ways. Students may be referred on an individual basis to the Texas Rehabilitation Commission for services. A rehabilitation counselor, working with special education personnel, may contract for vocational evaluation with a rehabilitation facility. This process has often been used in the past with vocational adjustment coordinators. While such services continue to be provided on an individual basis, schools are now expected to bear more of the cost of vocational evaluation. A school can also make a direct agreement with a vocational evaluation center. Schools pay for this service on a per student basis. An agreement which provides a certain number of evaluations for a given cost could be negotiated with an evaluation center.

Vocational evaluators in these programs represent a pool of the best-trained personnel in the vocational assessment of handicapped persons. Many have graduate degrees specifically in this discipline. Schools which use such centers should provide a mechanism for these individuals to become very familiar with the special education and vocational education programs in the school. Advantages for this option include:

1. programs are already established with trained personnel and assessment equipment; and
2. having assessment outside the school environment may help students perceive vocational assessment as "work," thus improving motivation and providing more valid assessment.

Disadvantages for this option include many of those associated with using assessment centers:

1. transportation complications may occur;
2. vocational evaluators in these programs may be less familiar with specific programs of the local school district; and
3. vocational evaluators may be less accustomed to dealing with younger handicapped persons.

Mobile Vocational Assessment

The need for provision of vocational assessment in sparsely populated, rural areas has suggested the use of mobile vocational assessment. This can be done in several ways. A small mobile home that includes vocational assessment materials may be taken from school to school. The Education Service Center in Corpus Christi used this method in the early 1970's. Also, a van housing vocational assessment materials may travel from school to school. In another approach, vocational assessment specialists may take some minimal materials and tools and move from school to school. Advantages of this option include:

1. assessment can be taken to a school rather than requiring personnel in each school or transportation to an assessment center; and
2. students may feel special having a mobile unit come to their school for their use.

Disadvantages include:

1. cost of transportation;
2. limitations on the amount of assessment materials that can be transported;
3. difficulty in simulating a work environment; and
4. difficulties in scheduling assessments.

Regional Vocational Assessment Consultant

A pilot project in Minnesota that provides a composite of several administrative arrangements is presently being implemented. A vocational assessment specialist with graduate training in vocational evaluation serves as a trainer/consultant for special education and vocational education school personnel in regional schools. In each school, a person (or persons) has responsibility for implementing and coordinating vocational assessment/

evaluation. The regional consultant provides training to staff and consultation regarding the implementation of vocational assessment. This model could be used with any of the administrative arrangements described above. A regional vocational assessment consultant could function effectively in each of the regional Education Service Centers. Care must be taken, however, that such persons be thoroughly trained in vocational evaluation.

Selecting Administrative Arrangements

Depending upon local resources, any of the above options may be considered. However, administrators should attempt to select the option that best meets each of the following requirements:

1. arrangements should allow for student assessment at various times throughout secondary school depending upon student needs;
2. personnel should be trained in vocational evaluation;
3. resources needed for effective vocational assessment should be obtained in the most cost-effective manner possible; and
4. assessment should be adapted to the specific programs and employment available locally.

Educators seem to favor the following administrative arrangements--the school-based vocational assessment center or the vocational assessment center developed cooperatively with other schools or community agencies. Cooperative efforts with other schools and agencies are highly encouraged, especially in rural areas. When vocational evaluation centers in rehabilitation facilities are available, schools should carefully consider arrangements with such facilities. Integrated assessment and use of occupational exploration classes may also be useful in rural areas.

Procedures and Considerations

Procedures must be developed to handle the logistics of vocational assessment. Some of the considerations are scheduling, length of the assessment, evaluator-to-student ratio, attendance and academic credit, student transportation, parent and teacher notification, student orientation, and sharing the results of vocational assessment.

Scheduling Options

Scheduling of vocational assessment can be handled in several ways. Assessment may be scheduled as a break from the student's regular classes. Assessment may last all day until it is completed--usually one to two weeks--or a student may be involved in assessment half of each day--which, of course, doubles the overall length of time. The advantages of the first option are that it may provide a more realistic work atmosphere, simplify transportation arrangements, and provide a more intensive guidance experience for the student. A disadvantage is taking the student away from the regular program in school for a certain period. The advantage of the half-day schedule is that the student may continue, to some degree, in the regular program. However, transportation arrangements may be complicated and assessment will be less like real work.

Assessment may also be scheduled as a special class through either special education or vocational education. Vocational education can organize such a class as part of Occupational Orientation, or special education may establish its own class as part of a local elective. Disadvantages of this option are that vocational assessment will be less like a real work setting and the number of students who can be assessed may be more limited. The advantage is that assessment may be more easily scheduled as a part of the regular school curriculum.

Length of Assessment

The length of vocational assessment will vary depending upon the assessment needs of a specific student. Assessment usually ranges from two days to six weeks. Comprehensive Vocational Assessment generally requires a student to be involved in the assessment process for around thirty hours--one week if the student is involved all day and two weeks if the individual is involved in one-half days. However, the more severely handicapped may require even more time than this.

Vocational Assessment Specialist/Student Ratio

In most of the administrative arrangements detailed above, a vocational assessment specialist will be involved in the assessment of several students concurrently in a fashion very similar to individualized instruction. Such an arrangement facilitates the most cost-effective use of personnel and materials. The standards for the Texas Rehabilitation Commission state that one evaluator should not assess more than four students at one time. If an aide is used, this ratio may be increased to one/eight. Therefore, if the full-day schedule is used, four students could be evaluated in one week. If the half-day schedule is used, an evaluator could work with four students in the morning and four in the afternoon.

Student Transportation

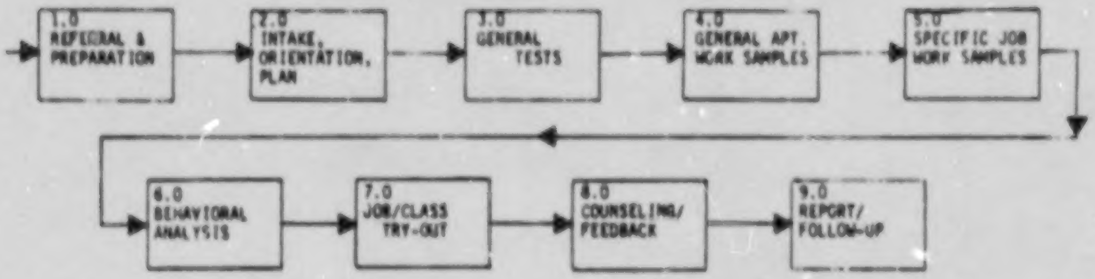
In all the administrative arrangements mentioned above, procedures for providing transportation of students to the vocational assessment site are needed. Such transportation will be needed daily while a student is attending a vocational assessment center. If work samples are administered in vocational classrooms, school districts must either duplicate these work samples in the appropriate vocational classroom on each campus or provide transportation from school to school.

Attendance and Academic Credit

Vocational assessment should be considered as an extension of the regular school program whether on- or off-campus. Therefore, a student who is attending a vocational assessment center should be counted as present in school. Students may either be exempted from their regular school work during this period or may be expected to maintain regular work assignments. To make the vocational assessment as valid and effective as possible, it is recommended that students be exempted from their regular school work and arrangements be made with teachers.

Guidance/Process Model for Vocational Evaluation

Comprehensive vocational assessment, or vocational evaluation, involves an intensive guidance/assessment process in which students explore jobs, are assessed, and develop a specific vocational objective. A model of comprehensive vocational assessment is provided in Figure 4 on the following page. Vocational assessment begins with more general assessment techniques and proceeds through the use of work samples, situational assessments, and job try-outs, concluding in the determination of the most appropriate occupation or training for the individual. While occupational exploration and vocational counseling are shown as discrete elements in the process, they are both actually used throughout the assessment process. Note that the initial stages of vocational evaluation are essentially the same as those described in Basic Vocational Assessment (Levels I and II)


1.0
REFERRAL &
PREPARATION
2.0
INTAKE,
ORIENTATION,
PLAN
3.0
GENERAL
TESTS
4.0
GENERAL APT.
WORK SAMPLES
5.0
SPECIFIC JOB
WORK SAMPLES
6.0
BEHAVIORAL
ANALYSIS
7.0
JOB/CLASS
TRY-OUT
8.0
COUNSELING/
FEEDBACK
9.0
REPORT/
FOLLOW-UP

1.0 REFERRAL: referral interview; review of Level I/II information; student, parent, teacher preparation, referral form.

2.0 INTAKE/ORIENTATION: orientation to assessment; intake interview; establish individual assessment plan.

3.0 GENERAL TESTING: additional paper and pencil tests if needed.

4.0 GENERAL APTITUDE WORK SAMPLES: dexterity/coordination tests; physical skills; occupational exploration via media, group discussion, etc.

5.0 SPECIFIC JOB WORK SAMPLES: assessment on work samples related to specific jobs/career areas or specific training programs; continued occupational exploration.

6.0 BEHAVIOR ANALYSIS: behavior observation and analysis in a controlled work setting.

7.0 JOB/CLASSROOM TRY-OUT/OBSERVATION: based on above results, jobs or training programs will be selected for a brief try-out period for observation of ability to perform there.

8.0 COUNSELING/FEEDBACK: talk with student to consider plans, recommendations, and needs. A formal staffing occurs if possible.

9.0 FOLLOW-UP: follow-up of outcome with an individual relative to recommendations. Summary report to teacher and parent. Complete vocational evaluation report to student file and ARD committee.

Figure 4

Comprehensive Vocational Assessment Process

* Developed by the Permian Basin Regional Vocational Evaluation Center

In an effective program of vocational evaluation, professionals gain information that helps them in working with students. Students benefit directly in that they understand more about the world of work and their ability to function it it; their self-concepts often improve with success experience; and their behavior may improve as they understand why school may be useful to them in getting a job. If these outcomes are to occur from comprehensive vocational assessment, several principles must be observed:

1. vocational assessment/evaluation must be individualized for each student;

2. vocational assessment should occur in an environment that is as similar to the working environment as possible. Using work samples in vocational classrooms can aid this process; and
3. vocational assessment must be implemented as a counseling and guidance process in which assessment techniques are interactive with student feedback. The result is the development of good recommendations for the most appropriate job placement or vocational training as well as required auxiliary services and training.

Referral and Preparation

A systematic process for identifying students who need Comprehensive Vocational Assessment (Level III) was discussed early in this chapter. Once a student is identified, someone must be given the responsibility of making arrangements for student referral and scheduling for Comprehensive Vocational Assessment (Level III). Generally, a referral which further specifies assessment questions should be completed. As described earlier in this manual, the more specific assessment questions are, the more effective vocational assessment can be. An exemplary referral form used at the Regional Vocational Evaluation Center at Odessa College is included as Appendix K. In addition to a referral form, Level I and Level II vocational assessment information must be given to those doing Comprehensive Vocational Assessment (Level III).

It is very important that students, parents, and teachers be prepared for the vocational assessment process. A simple form (see Appendix L) can be used to notify the teacher when a student is scheduled for Comprehensive Vocational Assessment. Such notification prevents potential misunderstandings. The parents should also be notified. They should be informed of the date, location, and purpose of the vocational evaluation. A letter can be sent to the parents with a transportation release form (see Appendix L). An orientation booklet can be developed to give to interested professionals and parents as well as students. This booklet should be sent home to the parents of students about to begin vocational assessment.

Preparing students for their participation in the vocational evaluation process is very important. If vocational evaluation is to be a guidance process, the student must understand the evaluation purpose and process. Special care must be taken to reduce fear of being tested and evaluated.

The student can visit the vocational assessment center prior to the vocational evaluation. A student may talk with the vocational assessment specialist and observe work samples that are used. The vocational assessment specialist may interview the student. This will enable rapport to be established and a vocational evaluation plan to be more effectively developed.

In another valuable approach, an audio-visual program that describes the assessment process may be developed and shown to students in the classroom prior to their coming to vocational evaluation.

Fear can also be reduced by providing written orientation materials. A booklet or orientation manual that tells students about vocational assessment should be developed. The manual should include student responsibilities during assessment. Project KEYE in Klein Independent School District developed an orientation booklet entitled Whadda Ya Wanna Be When Ya Grow Up?, for example.

Intake, Orientation, and Assessment Planning

During the initial phases of Comprehensive Vocational Assessment, rapport must be established with students, they must be given an orientation to the assessment process, and an individualized assessment plan must be developed. The establishment of rapport with students and orientation to assessment can be accomplished several ways. However, it is suggested that both an individual interview and a group orientation be used.

Individual interview. An individual interview should be held either prior to or following the group orientation. If no previous interview was held, the vocational assessment specialist should ask the student about family background, interests, and perception of abilities. If this information is available from other sources, the interview may be used to check the validity of the information. Responses during this interview should be documented.

Group orientation. Usually several students will be involved in vocational assessment at one time. Having peers in vocational assessment helps students to feel more relaxed and less threatened. Usually the vocational assessment specialist will meet with the group and explain in detail what the schedule will be during the assessment process. It must be made clear that students cannot "fail" the assessment. A positive tone is important, for example: "We are here to help you find out what jobs you want to do and can do. We will work with you so you can make plans to get training for a good job. You can't fail the tests we will give. They are only to help you and us decide what job you want to do and can do."

Individual assessment plan. Based on available information from the Basic Vocational Assessment (Levels I and II), the interview, and referral questions, the vocational assessment specialist should develop a detailed individual assessment plan. This process is discussed in Chapter 3. However, at this point, assessment questions should be more specific and refined. The development of the plan should involve identification of assessment questions, identification of assessment methods to answer questions, and development of a schedule to implement the plan.

This competency-based approach to assessment saves time by using assessment resources most efficiently and effectively. The individual assessment plan should be briefly documented and revised as needed during the assessment process. Additional information is provided in Chapter 2 concerning assessment planning. The following publication provides additional discussion concerning student orientation to comprehensive vocational assessment:

> Client Orientation: A Key to Successful Involvement in Rehabilitation Facility Services. Materials Development Center (see Appendix D). (Cost: 25¢)

Implementing Vocational Assessment

Once the assessment plan is completed, various methods designed to answer assessment questions may be implemented. As indicated previously, a variety of staff may be involved in this process. A trained vocational assessment specialist, however, should have a central role. According to the process model used in vocational evaluation, assessment methods will usually move from general to specific, from methods least like the work environment to those most like the work environment. Assessment of functional living skills and vocational counseling and feedback can occur throughout the assessment process. A sample schedule for a one-week vocational assessment is offered in Figure 5.

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00					Write Reports
9:00 10:00 11:00 12:00	Intake/ Orientation & General Testing	Dexterity & Coordination Tests	Work Samples	Job/ Classroom Try-out or Observation	
	Lunch	Lunch	Lunch	Lunch	
1:00 2:00 3:00 4:00	General Testing	Work Samples	Work Samples	Staffing	Write Reports
5:00	Score Tests	Score Tests	Score Tests		

Figure 5

One-Week Vocational Assessment Schedule

Counseling/Feedback/Staffing

Vocational counseling and feedback occurs throughout the vocational assessment. However, it is crucial that a counseling interview be held with the student at the end of the comprehensive vocational assessment. This should occur no matter what scheduling or administrative arrangements are used. The vocational assessment specialist should discuss the results of the assessment with the students.

Depending upon the procedures used by a school, a staffing may be held upon completion of the assessment. Such a staffing could function as the yearly ARD in which the Individual Education Plan (IEP) is formulated. Conducting a staffing with educators, students, and parents at the end of comprehensive vocational assessment is highly recommended because the findings are "fresh" at that point and can effectively influence the development of a useful IEP. If such a staffing is not possible immediately following assessment, specific procedures must be developed by the school district to insure that vocational assessment information is used in planning.

Reports and Communication

Vocational assessment results must be used in planning the IEP. The vocational assessment specialist is responsible for writing a report that clearly, concisely, and comprehensively details student abilities and needs. The following types of reports may aid the process of communicating the results of the vocational assessment: (1) a comprehensive narrative report; (2) a one-page summary of implications for teachers; and (3) a one-page summary to be sent to parents. A sample format for the vocational evaluation report is contained in Appendix M.

Methods of Vocational Evaluation

Comprehensive Vocational Assessment may use some of the same methods used in Basic Vocational Assessment (Levels I and II). However, certain methods are almost totally associated with comprehensive vocational assessment. Methods that may be used in Level III assessment include:

1. reviewing and updating medical, psychological, educational, and social information;
2. testing interests and aptitudes;
3. assessing criterion-referenced functional life skills;
4. testing dexterity and coordination;
5. using commercially-developed work samples;
6. using locally-developed work samples;

7. offering occupational information and exploration;
8. conducting behavior analysis; and
9. administering classroom and job try-outs.

These methods are discussed in greater detail below.

Criterion-Referenced Assessment of Functional Life Skills

This area of assessment was discussed in Chapter 4. However, additional assessment may be needed because a teacher may not have had the opportunity to observe a student skill in a particular area. If a skill is especially important, the vocational assessment specialist may use simple criterion-referenced tasks in conjunction with the checklists of functional living skills discussed earlier to determine a student's functional ability.

Dexterity and Coordination Tests

These types of tests are mentioned in Chapter 5 as they are a type of aptitude test. However, more in-depth assessment of physical abilities is usually an important part of comprehensive vocational assessment. Dexterity and coordination skills can be assessed in tests specifically designed for this purpose and as parts of multiple-ability assessment systems. The General Aptitude Test Battery (GATB), for instance, includes tests for dexterity and coordination. The VALPAR work sample system also contains three work samples specifically designed to assess physical skills, including upper extremity range of motion (#4), whole body range of motion (#9), and use of small tools (#1).

One problem with many dexterity and coordination tests is that norms are often not available on handicapped populations and most industrial norms are rather outdated. The vocational assessment specialist must carefully determine which norm groups to use.

Commercially-Developed Work Sample Systems

Work samples have been developed as assessment techniques that are especially useful in identifying the vocational skills of persons with special needs. According to the Vocational Evaluation and Work Adjustment Association, a work sample is

> . . .a well defined work activity involving tasks, materials, and tools which are identical or similar to those in an actual job or cluster of jobs. It is used to assess an individual's vocational aptitude, worker characteristics and vocational interests.

Work samples are tests in that they are usually administered under standardized conditions and use norms or some other criteria in evaluating student scores. They often emphasize "hands-on" tasks that are similar to or the same as tasks required in actual jobs--tasks such as alphabetizing file folders, wiring a circuit, or tuning a gasoline engine. Work samples can also assess more generic work traits such as range of motion, problem-solving, and mechanical aptitude. Work samples may be placed in the following categories:

1. "actual job sample" is a sample of work that has been taken in its entirety from a very specific occupation. All aspects of a job are sampled;
2. "simulation job sample" is a representation of the common critical factors of a job. It differs from an actual job sample in that all the factors affecting the job will not be replicated; and
3. "single trait sample" contains a number of traits inherent in a job or cluster of jobs. Based upon an analysis of an occupational grouping, it is intended to assess a client's potential to perform various jobs.

There are several reasons why work samples are useful in providing vocational assessment:

1. work samples may not require reading ability unless it is required

on the job;

2. work samples are much more related to the criterion--i.e., job performance;
3. work samples have excellent face validity. The student is "performing work" rather than taking a test;
4. work samples facilitate vocational exploration in combination with assessment;
5. work samples can be used to measure attitude, motivation, and work behavior as well as specific job skills; and
6. work samples provide information about abilities to function in specific areas of work.

Work samples can be developed locally by vocational evaluators or purchased as part of commercial vocational evaluation systems. A summary of each of the major types of commercial vocational evaluation systems is provided in Appendix N.

The advantage of commercial evaluation systems lies in their convenience. They include ready-made, usually attractive, hardware. They are often based on extensive research and development efforts and have norms. Commercial evaluation systems can provide good assessment information if selected and used appropriately. However, they may be expensive and may not be oriented specifically to the training and employment options in a particular community. Most comprehensive vocational assessment programs use a combination of locally-developed work samples and one or two commercial vocational evaluation systems. Some considerations in the selection and purchase of commercial vocational evaluation systems are provided in Table 9 on the following page.

Table 9

Considerations for the Selection and Purchase of Commercial Systems

Selection	Purchase
1. How long does it take to administer each test/battery?	1. Can you buy only one unit in a battery? Is there a discount if you buy the battery?
2. How many students can be tested at once?	2. What type of equipment is involved? What is the chance of breakdown?
3. Are the instructions presented in verbal, pictoral, or written form? Is there demonstration and can the client ask questions?	3. How much space is needed to store the work sample and the consumable items?
4. Are job clusters or specific jobs sampled?	4. What sort of consumable items are needed? Are they readily available at reasonable cost? What is the turn-around time from order to receipt?
5. What norm groups are used? What kind of clients will be tested? What are the placement goals?	5. What is the initial cost? Is there a discount if sold to an educational institution?
6. How do the jobs or job clusters being tested compare with jobs available in the student's community (or sheltered workshop)?	6. Is training required on-site or at the factory? What training costs are included in the price?
7. Are there any provisions made for scoreing/recording behavioral observations? How does this influence outcome scores?	7. What are the maintenance contract costs? What is the turn-around time on service? Are items serviced on-site or in the factory?
8. Have follow-up studies been done with tested groups to demonstrate reliability of samples?	

More detailed information concerning commercial vocational evaluation systems can be obtained from the Materials Development Center (see Appendix D) in:

Karl Botterbusch. Commercial Vocational Evaluation Systems, 1980.
(Cost: $3.00)

Locally-Developed Work Samples

Work samples that are developed locally can provide students with opportunities for assessment and exploration of local vocational training and employment opportunities. They often require more staff skills and time for development. However, local work samples will usually be much less expensive than commercial work samples. If local work samples are to be developed, a vocational assessment program will need a person trained in work sample development, the money to spend in the construction of work samples (e.g., tools, lumber, and costs of other materials), and thirty to forty hours per work sample.

The development process could occur in several ways. A vocational assessment specialist might gradually, over several years, develop work samples based upon training and job analyses. The specialist might also work with a group of vocational teachers over several days to develop work samples related to their vocational programs. Several school districts in an area might pool their efforts in developing work samples, thus reducing the cost to each. The process of developing work samples involves the steps in Table 10.

Table 10

The Steps in Developing Local Work Samples

1. *Decide which work samples to develop*. This involves a determination of the jobs available in an area which are feasible for handicapped students and vocational education or other programs available to students. Work samples should first be developed for those programs or jobs most available to students. As the evaluation program is improved, more work samples may be developed. A truly comprehensive vocational assessment program provides assessment and exploration of a broad range of occupations.

2. *Conduct a job/curriculum analysis*. When developing a work sample for vocational programs, a training analysis similar to that suggested in Chapter 2 should be conducted. This analysis should determine precise entrance criteria, success behaviors, and teaching format, with potential modifications, for each program--especially those that are targeted for assessment. If assessment is intended to provide recommendations for job placement, a job analysis should be performed (see Chapter 2). A detailed, accurate analysis must be conducted that includes a determination of job tasks, worker requirements, physical demands, and environmental conditions.

3. *Design and construct the work sample*. The tasks selected for inclusion in the sample must be based on their importance to the job or training program and the feasibility of replicating them in the work sample. These tasks must be sequenced, with the necessary practice sessions and instructions included.

4. *Develop criteria for success*. Some means must be developed to determine how well a student performs on a work sample. These include development of norms, use of behavioral checklists, and application of task ratings according to categories and levels of ability used in the *Dictionary of Occupational Titles*. Establishing and updating norms is an ongoing process. Performance on the sample should be measured by number of correct products, number of errors, quality of work, or time required for completion--whichever element is most appropriate for the particular task. The groups with whom the individual is to be compared should be carefully selected and should reflect the population with whom the handicapped person will be competing for a job. Percentile scores or standard scores are most often used in establishing norm tables. More information on these methods can be found in any standard measurement text.

5. *Write the work sample manual*. For the work sample to be systematically administered and used by other professionals, a manual is necessary. It should include forms of specific instructions to be given to the individual and to be followed by the evaluator. The Materials Development Center at the University of Wisconsin-Stout (see Appendix D) has designed a standard format for such a manual that allows agencies and individuals to use work samples developed by others. A guide, *Work Sample Format*, may be obtained from the MDC.

6. *Establish estimates of reliability and validity*. Elaborate statistical tests are not needed, but it is necessary to see if the scores obtained on the work sample are consistent and if the sample measures what it purports to measure. Test-retest reliability is probably the most useful statistic in determining consistency. In terms of validity, it is most useful to determine if the essential tasks or activities of the job itself are realistically included in the work sample and if individuals who do well on the sample perform well on the real job (or in the vocational class) that the sample represents.

Fortunately, resources exist where vocational assessment specialists may take advantage of the work of others in developing work samples. Two publications are useful in developing local work samples.

Project VERT (Vocational Education Readiness Test).

Publications
Research and Curriculum Unit
Mississippi State University
P.O. Drawer DX
Mississippi State, Mississippi 39762
(Cost: $4.00)

This publication was developed to provide an assessment of some student skills needed for entrance into vocational education programs. Work sample plans include the following vocational programs: plumbing, auto mechanics, carpentry, home economics, and electrical wiring.

Work Sample Manual Clearinghouse Catalog.

Materials Development Center (see Appendix D)
(Cost: $2.00)

A clearinghouse of work samples including around 100 work sample manuals is maintained by the Materials Development Center. These manuals may be borrowed for a minimal cost and duplicated.

Behavior Observation in a Controlled Work Setting

The development of appropriate work behaviors and interpersonal relationships is a very important component of vocational training programs for handicapped persons. Vocational teachers are concerned with student safety and work behaviors which are considered critical for effective job placement. A special area of emphasis called work adjustment has been developed in rehabilitation facilities to provide training for persons who need to develop good work behaviors. Assessment of student work behaviors is an important part of comprehensive vocational assessment.

One of the most effective assessment techniques of work-related behaviors has involved systematic behavior observation in a controlled work setting. Behavioral assessment is most effectively implemented when the setting in which behaviors are observed is a realistic work setting and the environment can be systematically manipulated. Several settings can be used for this purpose, including sheltered workshops, simulated work settings, work adjustment classes in a school, and job or classroom try-outs.

The environments most often used for this purpose are sheltered workshops and work adjustment classes. In these situations, handicapped persons are involved in on-going work. Usually some sort of product is manufactured in a factory-like setting. Some examples include sewing, stuffing envelopes, producing lead fishing sinkers, and refinishing furniture. Such settings can provide an environment similar to that of competitive jobs and also allow systematic environmental manipulation. Sheltered workshops, in which on-going work is used, have been developed by some school districts. Workshops associated with rehabilitation centers, MHMR centers, or state schools also provide useful environments for work behavior assessment. Schools may want to make cooperative arrangements with sheltered workshops in their area to include this component in the Comprehensive Vocational Assessment.

In systematic behavior analysis, one can gain very specific information about student work behavior in relation to environmental conditions such as level of noise, type of supervision, and number of persons in the work area. Effective instructional methods such as verbal instructions or verbal instructions with demonstrations can be determined. Information regarding reinforcement strategies can be useful in both training and job placement.

To gather such information, the following basic steps are involved: (1) specify the behavior(s) to be observed; (2) describe the training environment (determine antecedent and consequent events); (3) measure the initial strength of the behavior(s) (chart or baseline); (4) begin the treatment; and (5) continue the treatment until behavior change can be shown to be functionally related to treatment.

When implementing this process, one must manipulate the environment so that all variables are held constant except the variable of interest. For example, a vocational assessment specialist may wish to determine whether a specific student learns and exhibits most appropriate behavior under certain supervisory styles. Optimally, all work conditions would remain constant except the styles of supervisors who interact with the student at different times on the job. Detailed records would be kept concerning the student's work production and work behaviors so that a comparison of responses under different supervisors could be made.

Work behavior rating forms are often used in recording student work behaviors. Some of these are noted in Chapter 4. Usually a supervisor or teacher in the work situation will complete behavior rating forms periodically during the time that a student is involved in assessment. For instance, an assessment program could be structured so that a student spends two full weeks in Comprehensive Vocational Assessment in which one-half day is used for testing and one-half day is conducted in one of several work stations. A supervisor in the work station would complete a work behavior rating form at the end of each week. Training is needed in the use and interpretation of rating forms in order to get reliable and valid data.

Another related approach attempts to provide a feasible method for using more systematic behavior analysis. This approach assumes the existence of relatively stable work stations in a controlled work environment. Job analysis would allow job skills at a work station to be described in terms used in the Dictionary of Occupational Titles and norms for work behaviors would be established. Such norms would determine the percentage of on-task behavior, interaction with peers, and interaction with supervisors. The work behaviors of the person being assessed would be observed and recorded by using a time sampling technique. The evaluee's behavior may then be compared easily with work behavior norms. Such an approach attempts to separate environmental influence from the unique characteristics of an individual. More detailed information concerning this approach may be gained from Dennis Dunn's Situational Assessment: Models for the Future, available from the Materials Development Center (see Appendix D) for $2.00. Additional general information concerning behavior observation in controlled work settings can be gained from other Materials Development Center publications.

Occupational Exploration

Occupational exploration should be an integral part of the instructional program and should be reflected in the Basic Vocational Assessment. However, all too often handicapped students simply have a poor conception of the working world, even if they have had previous occupational exploration experience. Therefore, occupational exploration should be an integral part of Comprehensive Vocational Assessment as well. Students should complete the assessment process understanding more about the world of work and their abilities and needs relative to work. Only by incorporating occupational exploration into the assessment process can students gain increased understanding.

Occupational exploration can be facilitated in a variety of ways during the vocational assessment process. These include the use of frequent feedback and counseling; occupational information resources such as the Dictionary of Occupational Titles, the Occupational Outlook Handbook, and career information systems; work samples; tours of business, industry, and vocational training classes; and job and classroom try-outs.

Probably the best source of occupational exploration resources in a school is the occupational orientation teacher. In addition, the Research Coordinating Unit, Department of Occupational Education and Technology, Texas Education Agency, has copies of occupational investigation resource materials which were developed by the Occupational Curriculum Laboratory at East Texas State University.

Vocational Classroom Try-Outs

Vocational classroom try-outs and job try-outs involve placement in an environment to see how an individual functions. These try-outs should occur at the end of Comprehensive Vocational Assessment, and selection of a try-out situation should be based on previous occupational exploration, interest assessment, and work samples. Try-outs are an intensive method of combined assessment and vocational exploration which provide the final confirmation of recommendations developed as a result of previous vocational assessment.

Vocational classroom try-outs should be used as a culmination of vocational assessment that is designed to develop recommendations for entrance into a vocational program. This method requires a great deal of cooperation and coordination with the vocational education teacher. Vocational classroom try-outs may be implemented primarily in one of three ways.

On-going class. Students may enter a vocational class that has been on-going. In such a situation, the student could observe activities of the class and participate to the degree possible. Such a student might be assigned a "buddy." The vocational teacher could structure activities for the student similar to those normally used at the beginning of the course.

Beginning class. A vocational classroom try-out may be scheduled at the beginning of a vocational class. In this situation, the classroom try-out would be based on recommendations for entrance into a given vocational program. This option is less part of the Comprehensive Vocational Assessment than it is a procedure for allowing students provisional entrance into a vocational classroom. It is recommended that the vocational classroom try-out be instituted as an integral part of the assessment. If this is done, the need to pull students out of classes because of poor performance should seldom occur.

Teachers administer work samples. A very useful method of vocational assessment involves the administration of work samples by the vocational teacher in the classroom itself. This method combines work sample assessment and vocational classroom try-out.

Usually between one and four vocational classroom try-outs are used in comprehensive vocational assessment. Previous assessment narrows down student interests and abilities to several possibilities, and students are given various options for vocational classroom try-out. This method allows the vocational teacher to have direct contact with the student and to be actively involved in the vocational assessment process. Vocational classroom try-outs can also enable a more positive preparation for a student's entrance into a vocational program. The attitude of the instructor will often be more positive, and teachers may know before hand how to plan the instruction of handicapped students. Students themselves will be more effectively prepared for entrance into vocational programs. They may confirm an interest in a class, establish rapport with a teacher, and, therefore, begin the class with a greater degree of confidence.

Job Try-Outs

Job try-outs are similar to vocational classroom try-outs. However, the try-out involves a specific job rather than a vocational class. Job try-outs are used when the purpose of the vocational assessment includes a determination of the most effective job placement. Job try-outs also should occur at the end of vocational assessment. They provide the most realistic setting for a combination of assessment and occupational exploration.

Developing job try-outs as a method of vocational assessment necessarily involves locating employers who are willing to provide work stations for this purpose. Job try-out stations may be developed with local business and industry and human service agencies. Schools, rehabilitation agencies, and welfare departments may be especially open to developing job try-out stations. The types of jobs available in these programs may be limited, however. As the vocational assessment program is developed, job try-out slots should be initiated with business and industry as well.

Job try-outs with employers may be established in two ways: handicapped students may try-out with employers who have specific job openings, and if successful on the job try-out, may be hired by the employer; or job try-out slots may be developed through which students rotate with no chance for employment. Usually, a comprehensive vocational assessment center will use a combination of these approaches. Each has its own advantages and disadvantages. The first approach allows vocational assessment to be used as an effective screening tool in placing students in actual jobs. Employers should be responsive to this approach since they will be provided a good employee selection device. The second approach to job try-outs allows intensive student exploration of several jobs and allows for easier administration of assessment. This approach can be used as a component of a total experience-based career education program. Vocational adjustment coordinators and cooperative vocational education teachers may aid in developing job try-out stations.

Job try-outs can range from a half day to a full week, depending on the structure of the assessment program and the needs of a student and employer. Likewise, students normally can be involved in one to four job try-outs. Job try-outs should be carefully planned. If possible, specific assessment questions should be identified that need to be answered by using the job try-out. A vocational assessment specialist will need to work with a job supervisor in try-outs. The job supervisor will provide almost all of the observation of student skills and work behaviors on the job. Behavior rating forms, such as those discussed in Chapter 4, can be used by employers to rate student responses on the job.

Preferably, a specific rating form should be developed for each type of job, including a checklist of specific job skills and a checklist or rating of relevant work behaviors. A detailed job analysis, as discussed in Chapter 2, should be completed for all jobs selected for try-outs. This will aid in developing means of documenting student skills and behavior on the job. If the job analysis is done according to the system used by the Department of Labor, assessment information gained from job tryouts can be applied to other jobs via use of the Dictionary of Occupational Titles.

Chapter 7

VOCATIONAL ASSESSMENT AND INDIVIDUALIZED EDUCATIONAL PLANNING

Although this manual deals primarily with the process of implementing vocational assessment, developing effective Individualized Education Plans (IEP's) for secondary handicapped students based on this assessment information is extremely important. In developing individual vocational education plans, the following areas should be considered: (1) goals and developmental areas; (2) vocational program continuum; (3) the process of Admission, Review, and Dismissal (ARD) committees; and (4) the recording of Individualized Education Plans. These are discussed briefly below.

Vocational Development Goals

In Chapter 2, developmental assessment issues and skills related to them were discussed. These were broken into three basic categories: prevocational and functional life skills; entrance into vocational programs; and job placement. The skills that are assessed in vocational assessment must be systematically related to educational/vocational goals and objectives.

Several curricula were discussed in Chapter 4 that can facilitate this connection. One especially useful curriculum is that developed by Donn Brolin as part of Project P.R.I.C.E. (Programming the Retarded in Career Education). Twenty-two competency areas were identified and placed in the following major categories: (1) daily living skills; (2) personal-social skills; and (3) occupational guidance and preparation. These competency areas are listed in Table 11 along with potential types of educators qualified to aid students in the development of skills in each area.

Table 11

Desired Competencies and Educational Experiences

FAMILY LIVING SKILLS

Competency	Junior High School Level	Senior High School Level
1. Manage family finances	Business, Mathematics	Home Economics, Mathematics
2. Select, manage, and maintain home	Home Economics, Vocational Education	Home Economics
3. Care for personal needs	Home Economics, Physical Education, Health	Home Economics
4. Raise children, family living	Home Economics	Home Economics
5. Buy and prepare food	Home Economics	Home Economics
6. Clothing preparation and buying	Home Economics	Home Economics
7. Engage in civic activities	Social Studies, Music	Social Studies, Music
8. Utilize recreation time	Physical Education, Art, Music	Physical Education, Art, Music
9. Become mobile in the community	Home Economics	Driver's Education

PERSONAL-SOCIAL SKILLS

Competency	Junior High School Level	Senior High School Level
10. Achieve self-awareness	Music, Physical Education, Counselors	Art, Music, Counselors
11. Acquire self-confidence	Art, Music, Physical Education, Home Economics, Counselors	Physical Education, Counselors, Social Studies, Art, Music, Vocational Education
12. Develop socially responsible behavior	Physical Education, Counselors, Music	Social Studies, Music
13. Exhibit interpersonal skills	Counselors	Music, Counselors
14. Achieve independent functioning	Counselors	Counselors
15. Decision-making, problem solving	Mathemathics, Counselors	Science, Counselors
16. Communicating adequately	Language Arts, Music, Speech, Physical Education	Language Arts, Speech, Music, Art

OCCUPATIONAL GUIDANCE AND PREPARATION

Competency	Junior High School Level	Senior High School Level
17. Explore occupational information	Vocational Education, Home Economics, Counselors, Occupational Orientation	Counselors
18. Reach appropriate occupational decisions	Business, Vocational Education, Vocational Assessment	Counselors, Vocational Assessment
19. Develop appropriate work habits and behaviors	Vocational Education, Mathematics, Home Economics, Art	Home Economics, Vocational Education, Music
20. Acquire physical and manual skills	Vocational Education, Physical Education	Vocational Education, Physical Education, Art
21. Obtain specific occupational skills	Vocational Education, Industrial Arts, Home Economics	Vocational Education, Home Economics
22. Seek/secure employment	Counselors	Counselors

* Taken from Brolin & Kokaska (1979) Career Education for Handicapped Children and Youth.

The planning committee (ARD) should focus on functional skill development in at least the following areas: (1) pre-vocational skills; (2) functional life skills; (3) work behaviors; (4) specific vocational skills; and (5) job seeking skills to develop effective IEP's. The identification of specific goals, objectives, and instructional strategies will, of course, be based upon information from the educational and vocational assessment.

In focusing on these skills, the IEP is essentially developed in the following steps:

1. identifying skills that need to be targeted for development;
2. targeting a program placement in which these skills may best be developed--program placement for secondary handicapped students will usually include academic and career/vocational components; and
3. developing specific objectives and instructional strategies.

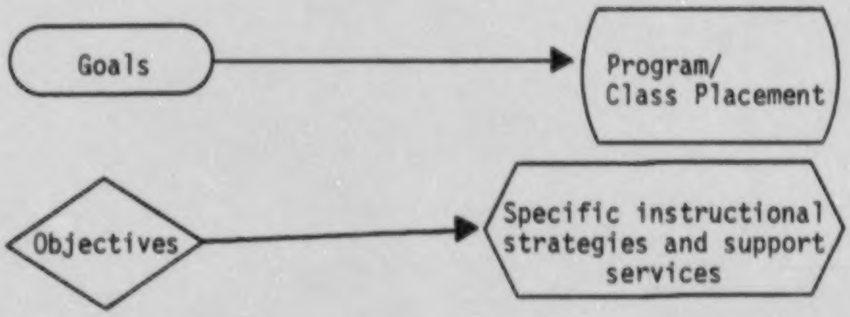
The vocational assessment report formats provided in Chapters 5 and 6 afford a way to list strengths and needs in the functional areas identified above, which is essential to the development of the IEP. Certain of these needs will be targeted for instruction. The analysis format provided in Figure 6 may be useful in this process.

Strengths	Needs	Targeted (✓)

Analysis Format

Figure 6

General instructional goals may be identified for a student and program placement decisions may be made based on the determination of the least restrictive and most effective program in which these goals may be realized. For example, if Sally wants to develop horticulture skills to work in a nursery, a decision must be made based on the needs of the student as to the best type of training--on-the-job in a CVAE or VEH program, or in a regular vocational program. Once a program placement decision is made, specific instructional objectives, teaching techniques, and support and related services may be identified. This relationship is illustrated in Figure 7 below.



Instructional Decision-Making

Figure 7

Vocational Program Continuum

Program placement will generally have an academic and a vocational component. Academic instruction is offered on a continuum moving from the more restrictive self-contained classrooms to the less restrictive mainstreaming process with the use of the resource room for certain subject areas.

Vocational programs should also be considered as a continuum of services for handicapped students. This continuum may be considered from two perspectives. It is chronological in that students may progress through programs beginning in grade 7 and continuing through grade 12, and it represents an environmental continuum from the more restrictive services designed for the severely handicapped to those less restrictive ones designed for the mildly handicapped. The vocational alternatives available to handicapped students are discussed below, beginning with programs for the mildly handicapped and progressing to those for the more severely handicapped.

Some handicapped students may succeed in regular vocational classes without support. In pre-vocational development, industrial arts and occupational orientation may be considered on this level. Other students may succeed in regular vocational classes with support. A regular vocational class can be modified to accommodate handicapped students. Support may include modification of instructional levels, modification of curriculum, extended time, specialized materials, adaptive equipment, aides, or other services to assist the student in the regular class. Excess costs may be covered by federal funds for this purpose.

Another program is Coordinated Vocational-Academic Education (CVAE). This is a more restrictive environment open to handicapped students who are also either economically or academically disadvantaged.

The Vocational Education for the Handicapped (VEH) class is a vocational class designed for handicapped students whose greater degree of impairment precludes integration into a regular vocational education class. It is a more restrictive placement than any of the above programs. The Vocational Adjustment Class (VAC) is a cooperative work/study program administered by special education. For ARD purposes, it is being considered a vocational placement. Skill training should usually precede this work/study class. It is more restrictive placement because students do not benefit from having regular students in the class. There are also special education vocational programs. These are generally the most restrictive and include use of rehabilitation facilities, sheltered workshops, and activity centers.

Every effort should be made to move a student through this continuum of services into the least restrictive environment. Since VEH and CVAE programs sometimes begin before regular vocational programs, they may be used to prepare students for entrance into a regular vocational program with support as described above. Continual collection of vocational assessment information will aid in making such placement recommendations.

Admission, Review, Dismissal (ARD) Committee

The TEA Guidelines discuss the following four types of ARD meetings that are related to vocational assessment and placement of handicapped students:

1. ARD I: Yearly ARD review. The ARD committee will annually review a student's progress, develop an IEP, and discuss various vocational assessment issues concerning a student. The ARD may recommend more formal vocational assessment.
2. ARD II: Decision regarding the adequacy of Basic Vocational Assessment. When Level II vocational assessment is implemented, a decision must be made regarding the need for comprehensive vocational assessment based on the recommendations of the diagnostician and vocational counselor. Level III assessment may be scheduled if needed on ARD approval.
3. ARD III: Vocational ARD. When adequate assessment has been done, the ARD committee meets to consider vocational placement. A vocational placement includes consideration for the VAC program, placement in regular vocational education, CVAE, or VEH. When the committee reviews vocational assessment data to determine vocational placement, a vocational administrator or designee must be present on the committee. A counselor or teacher may also be present. When the ARD

committee is developing the IEP, the vocational teacher who will instruct the student must be present. The committee will develop the goals and objectives for the student and give the vocational teacher student information pertinent to instruction of that student.

4. ARD IV: Special education/vocational ARD. The special education/ vocational ARD is made after assessment is complete and focuses on placement in special education vocational options, e.g., sheltered workshops, activity centers, etc. Vocational education personnel do not have to be involved when these vocational options are considered.

At the vocational ARD (III or IV), decisions concerning program placement and support services are made. The development of specific instructional objectives will usually occur later.

Documenting the Individualized Education Plan

When documenting the IEP, a format should be used which lends itself to vocationally-related goals and is easily understood. The form in Appendix O may be used or modified for that purpose.

Chapter 8

VOCATIONAL ASSESSMENT/EVALUATION PROGRAMS

This chapter provides a brief description of vocational assessment/ evaluation programs within the state of Texas. Virtually all programs use an assessment center as the administrative model. All programs described below provide Comprehensive Vocational Assessment (Level III).

Vocational Assessment/Evaluation Programs in Texas

Dallas Independent School District

The Dallas Independent School District has developed a vocational evaluation center for handicapped students who are referred from various schools within the district. The center, a part of their multiple careers magnet center, is staffed by six professional staff and three aides. Students are evaluated in three-week cycles for on-half day. Eighteen students may be evaluated at a given time, with thirty-six participating in the program daily. The first week of the evaluation focuses on general work behavior and manipulative abilities via the use of work samples and psychometric tests. The second week of evaluation is spent in a diagnostic lab in which both job-specific and non-job-specific work samples are employed. During the third week, the students are involved in a classroom in which effective behaviors are emphasized. Group counseling, social skills assessment, and group work projects are used during this period. For more information, contact:

Vocational Evaluation Center
Multiple Careers Magnet Center
4528 Rusk Avenue
Dallas, Texas 75204
(214) 826-9350

Permian Basin Regional Vocational Evaluation Center

This assessment center provides comprehensive vocational assessment for public schools in the Permian Basin area, as well as for CETA and vocational rehabilitation. The center is an administrative unit of Counseling and Human Development at Odessa College. It is funded by the college, a CETA-204 grant, and revenues collected on a fee-for-service basis. Comprehensive vocational assessment for secondary handicapped students usually lasts from three days to one week, depending upon the needs of the specific student. Basic vocational assessment (Level I) is implemented by special education personnel in the local public schools. Vocational assessment includes the use of psychometric tests, dexterity and coordination tests, work samples, and occupational exploration exercises. Locally-developed work samples are used in addition to the GATB, VALPAR, and Singer systems. For more information, contact:

Michael Raley, Director
Regional Vocational Evaluation Center
Odessa College
201 West University
Odessa, Texas 79762
(915) 337-5381 Extension 448

Region XX Vocational Evaluation Center

This center is a part of the Region XX Education Service Center and provides assessment services for students in that region. Students are referred for Level III vocational assessment by school personnel throughout the region. To make a referral, school personnel must fill out summary background information and a pre-vocational skills checklist concerning each student. The staff includes two vocational evaluators. Assessment usually lasts two days and may include psychometric tests, interest tests, dexterity tests, and work samples. The center has parts of each of the following vocational evaluation systems avaliable for use: VALPAR, Singer, McCarron-Dial, Project Discovery, Talent Assessment Program (TAP), and MIND. Funding for the program has been provided through grant monies from the Department of Occupational Education and Technology. For further information, contact:

Jane Francis
Region XX Education Service Center
1550 NE Loop 410
San Antonio, Texas 78267
(512) 828-3551

North Texas State University

The Vocational Evaluation Center at North Texas State University is a federally-funded, model vocational evaluation center which is used as a training laboratory for vocational evaluators and vocational assessment specialists. The center provides evaluation services primarily for schools in the area and for vocational rehabilitation clients throughout the state. The center is staffed by two vocational evaluators, a director, and a secretary. The evaluation lasts for two weeks and may include groups of up to ten evaluees. Beginning and ending with a staffing, evaluation may involve a wide range of psychometric tests, interest tests, dexterity tests, and work samples. The center has available most commercial evaluation systems including VALPAR, Singer, JEVS, VITAS, McCarron-Dial, Micro-Tower, and VIEWS. Counseling and occupational exploration are emphasized throughout the program. For more information, contact:

Kay McAllen, Director
Vocational Evaluation Center
North Texas State University
P.O. Box 16388
Denton, Texas 76203
(817) 788-2411

Klein Independent School District

The Cooperative Evaluation and Guidance Center is a collaborative effort among nine school districts. Funds are provided through P.L. 94-142. Initial funding was provided by a grant through the Bureau of Education for the Handicapped as part of Project KEYE (Klein Evaluates Youth Effectively).

The program combines educational and vocational assessment, thus fulfilling the re-evaluation requirements for the Texas Education Agency. Vocational assessment lasts one week and is preceeded by in-school student and teacher notification and preparation. Students are expected to keep up with regular assignments while in the vocational evaluation. The program uses some psychometric tests, the WRIOT and PIES for vocational interest, and the GATB for aptitudes. Additional aptitude and ability assessment is gained through the use of the JEVS and McCarron-Dial vocational assessment systems. For further information, contact:

Marge Patton, Evaluation Coordinator
Project KEYE
Klein Independent School District
7200 Spring Cypress Road
Spring, Texas 77379
(713) 376-4180

Goodwill Industries of Fort Worth

Housed in the Goodwill Industries of Fort Worth facilities, the Vocational Evaluation Center is presently the largest center in Texas. A staff of eleven provide comprehensive assessment to schools, CETA, vocational rehabilitation, and others. Vocational evaluation varies in length from one to four weeks and is concluded with a staffing. The program administers a wide range of psychometric and dexterity tests and emphasizes vocational exploration throughout the assessment. Locally-developed work samples and the following commercial vocational evaluation systems are available for use: Singer, VALPAR, Micro-Tower, JEVS, and VIEWS. Work stations in Goodwill Industries are used for both job try-outs and behavior analysis. For further information, contact:

Molly McGlasson
Vocational Evaluation Center
P.O. Box 1408
Fort Worth, Texas 76101
(817) 332-7866

Other programs

In addition to the programs listed above, a number of other vocational evaluation programs are being operated throughout the state of Texas. Although the majority of these are associated with rehabilitation facilities, CETA and other schools are developing programs as well. A list of vocational evaluation programs which have met the highest standards of the Texas Rehabilitation Commission follows in Table 12.

Table 12

Vocational Evaluation Programs

Amarillo State Center for Human Development
Work Evaluation and Training Center
314 S. Jefferson
Amarillo, Texas 79106

El Paso Lighthouse for the Blind
100 Dunne Avenue
El Paso, Texas 79905

Emilio Fernandez Sheltered Wrokshop
21201 Myrtle Avenue
El Paso, Texas 79901

Rehabilitation Department
Goodwill Industries of Lubbock
715 28th Street
P.O. Box 2902
Lubbock, Texas 79408

CLEW Sheltered Workshop
1403 East Highway 80
Midland, Texas 79701

Vocational Evaluation
Easter Seal Society
617 Seventh Avenue
Fort Worth, Texas 76104

Tarrant County MH/MR Services
Industrial Training Center
7431-C Dogwood Park
Richland Hills, Texas 76118

Vocational Evaluation
Individual Development Center
3401 Armory Road
Wichita Falls, Texas 76302

R.O.W. Industries, Inc.
706 Brentwood
Austin, Texas 73752

Vocational Evaluation Department
Goodwill Industries, Inc.
300 North Lamar
Austin, Texas 78703

Vocational Evaluation
Heart O'Texas Goodwill Industries
1000 East Waco Drive
Waco, Texas 76703

Vocational Evaluation
Harris County Center for the Retarded
P.O. Box 13403
3550 West Dallas
Houston, Texas 77019

Institute for Rehabilitation and Research
Vocational Unit
2809 Main Street
Houston, Texas 77002

Southwest Rehabilitation Institute
4102 Bellaire Boulevard
Houston, Texas 77025

Harlingen Vocational Evaluation Center
300 Camellia
Harlingen, Texas 78550

Goodwill Rehabilitation Service
P.O. Box 21340
3822 Pleasonton Road
San Antonio, Texas 78221

References

Botterbusch, Karl. A Comparison of Commercial Vocational Evaluation Systems. Menomonie, Wisconsin: Materials Development Center, University of Wisconsin-Stout, 1980.

Dahl, Peter, et al. Mainstreaming Guidebook for Vocational Educators Teaching the Handicapped. Salt Lake City, Utah: Olympus Publishing Company, 1978.

Fair, George. Vocational Education Programming for Special Education Students in Texas. Dallas, Texas: University of Texas at Dallas, 1976.

____________. Vocational Education Programming for Special Education Students in Texas--1980. Dallas, Texas: University of Texas at Dallas, 1980.

Francis, Jane. Final Report: Vocational Assessment for the Handicapped. San Antonio, Texas: Education Service Center, Region XX, 1980.

Peterson, Michael. "Development of a Model of Vocational Education Assessment," unpublished doctoral dissertaion. Denton, Texas: North Texas State University, 1980.

Pruitt, W.A. Vocational (Work) Evaluation. Menomonie, Wisconsin: Walt Pruitt Associates, 1977.

Sitlington, Pat. "Vocational Assessment and Training of the Handicapped." Focus on Exceptional Children, XII, No. 4 (December, 1979), 1-11.

Texas Education Agency. Guidelines for Vocational Assessment of Handicapped Students. Austin, Texas: Texas Education Agency, 1980.

__________________. Policies and Administrative Procedures for the Education of Handicapped Students. Austin, Texas: Texas Education Agency, 1979.

Thomas, Ed, et al. Vocational Readiness Test. Mississippi State, Mississippi: Research and Curriculum Unit, Mississippi State University, 1980.

APPENDIX A

TRAINING ANALYSIS FORM

Appendix A

TRAINING ANALYSIS FORM

Vocational Program: ______________________________

Instructor: ______________ School: ______________

Date: ______________

Occupational training goal(s) of program: ______________

____

____

____

Entrance criteria.

1. Physical skills: What minimal physical skills and abilities are required? What modifications could be made?

	Skill		Modification
____	Walking:	____________	______________
____	Standing:	____________	______________
____	Lifting:	____________	______________
____	Carrying:	____________	______________
____	Bending:	____________	______________
____	Fine-motor:	____________	______________
____	Speech:	____________	______________
____	Other:	____________	______________
____	Other:	____________	______________

2. Educational skills: What minimal academic skills are required? What modifications could be made in teaching techniques to allow lower skill levels?

Math: ____________ ______________

Reading: ____________ ______________

Language: ____________ ______________

3. Vocational skills:

Basic tool use and knowledge required: (Which ones?) ______________

____

____

Safety rules (specify): ______________________________

____

____

TRAINING ANALYSIS FORM, cont'd.

Work behaviors. Which ones are most critical? ____________________

____

____

____

Other concerns? ____________________________

____

____

____

Teaching techniques used. Which teaching techniques do you use? How could you modify these for the needs of a specific student?

Technique	Modification
____ lecture: ____________	____________________
____ audio-visual: ________	____________________
____________	____________________
____ small gp. project: ____	____________________
____________	____________________
____ discussion: __________	____________________
____ demonstration: _______	____________________
____________	____________________
____ study text: __________	____________________
grade level: __________	____________________
____ ind. projects: _______	____________________
____ other: ____________	____________________

Most all students proceed at the same pace? ____Yes ____No Suggested modifications? ____________________________

____

What support services or materials would you need to help handicapped students succeed in your program? ____________________

____

____

____

Other comments? ____________________________

____

____

Person doing anaylsis: ______________________

APPENDIX B

ENTRY LEVEL CRITERIA/PROGRAM MATRIX

Appendix B

ENTRY LEVEL CRITERIA/PROGRAM MATRIX

Entry Level Characteristics	PROGRAM																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
(EXAMPLE)																		
READING LEVEL: 8th grade	X	X					X											
5th grade			X	X	X													
3rd grade					M	X	M											
None						M												

X = Skill is absolutely required prior to entrance into vocational program.
M = Skill level is acceptable with curriculum modifications or with support from special education.

APPENDIX C

JOB ANALYSIS FORM

Appendix C

JOB ANALYSIS FORM*

JOB AREA: ____________________ JOB TITLE: ____________________

Business: ____________________ Address: ____________________

Phone: ____________________ Number employed: ____________________

Person interviewed: ____________________ Position: ____________________

Interviewer: ____________________ Date: ____________________

1. Qualifications

Age: Min. ____ Max. ____ Sex preference: Male ____ Female ____

License: ____________ Bond: Yes ____ No ____ Cost ____________

Union: Open ____ Union ____ Required? Yes ____ No ____ Fee/dues: ____

Local name: ______________ Address: ____________________

Experience required: ____________________________________

Tests given: ____________________________________

Application: Forms needed. Yes ____ No ____ Comment: ____________

Assistance in filling out forms. Yes ____ No ____ ____________

Personal interview? Yes ____ No ____ Comment: ____________

Health requirements: ____________________________________

____

Medical examination: Yes ____ No ____ Comment: ____________

Physical requirements: ____________________________________

____

Hearing: Exceptional ____ Average ____ Not important ____________

Vision: Exceptional ____ Average ____ Not important ____________

Speech: Exceptional ____ Average ____ Not important ____________

Carry/lift: ______________ Stand/walk: ______________

Crouch/bend: ______________ Reach/climb: ______________

Academic skill requirements Grade: ______ Comment: ____________

Language: Grade ____ Comment: ____________________________

Reading: Grade ____ Comment: ____________________________

Writing: Grade ____ Comment: ____________________________

Math: Grade ____ Comment: ____________________________

*Adapted from form developed for use in Arlington County School, Arlington, Virginia.

Personality requirements:

Emotional stability: ______________________________

Manners: ______________________________

Appearance: ______________________________

Other: ______________________________

Manual skills required:

Manual dexterity: ______________________________

Fine-motor dexterity: ______________________________

Speed: ______________________________

Precision: ______________________________

Tools and machines used: ______________________________

____

____

2. Working conditions

Wages: Pay period: ______ Amount: ______ Overtime: ______

Raise potential: ______________________________

Hours: Amount: ______ Work schedule: ______________________________

Job stability: Temporary ____ Permanent ____ Seasonal ______

Benefits: Vacation: ______________________________

Illness: ______________ Medical insurance: ______________

Pension: ______________ Workmen's comp. ______________

Other: ______________________________

Hazards:

Physical: ______________________________

Health: ______________________________

Emotional/moral: ______________________________

Surroundings: General desc. ______________________________

Inside/out: ______________ Noise level: ______________

Temperature: ______________ Wet/dry: ______________

Supervision: Degree (much/little) ______________

Position of supervisor: ______________ Type of supervision:

Warm/demoractic ____ Autocratic ____ Impersonal ______________

Employee interaction: Works alone ____ with a group ____ Describe: _

____

Promotion possibilities: ______________________________

Initial training: By whom? ______ How? ______________

3. Job Tasks:

Task	Machine/Tool	Ability

APPENDIX D

UNIVERSITIES WITH GRADUATE PROGRAMS IN VOCATIONAL EVALUATION

SOURCES OF INFORMATION CONCERNING VOCATIONAL ASSESSMENT

Appendix D

UNIVERSITIES WITH GRADUATE PROGRAMS IN VOCATIONAL EVALUATION

North Texas State University
P.O. Box 13438, NTS
Denton, Texas 76203
Contact: Dr. Clinton Wainwright

University of Arizona
Vocational Evaluation Education Program
College of Education
University of Arizona
Tucson, Arizona 85721
(602) 626-2298
Contact: Dr. Michael Lesnick

Auburn University
Rehabilitation and Special Education Dept.
1234 Haley Center
Auburn, Alabama 36830
(205) 826-5943
Contact: Dr. Randy McDaniel

Mississippi State University
P.O. Drawer GE
Mississippi State, Mississippi 39762
(601) 325-3331
Contact: Dr. Michael Peterson

Southern Illinois University
Rehabilitation Institute
Carbondale, Illinois 62901
(618) 536-7704
Contact: Dr. Horace Sawyer

University of Tennessee
Rehabilitation Counselor Education
College of Education
804 Volunteer Blvd.
Knoxville, Tennessee 37916
(615) 974-2351
Contact: Dr. Julian Nadolsky

UNIVERSITIES WITH GRADUATE PROGRAMS IN VOCATIONAL EVALUATION, cont'd.

East Carolina University
School of Allied Health
Greenville, North Carolina 22834
(919) 757-6961
Contact: Dr. Steven Thomas

University of Missouri-Columbia
Vocational Evaluation and
Work Adjustment Program
Department of Counseling and
Personnel Services
College of Education
University of Missouri-Columbia
223 South Fifth Street
Columbia, Mo. 65211
Contact: Dr. Malcolm Flannigan

University of Wisconsin-Stout
Stout Vocational Rehabilitation
Institute
University of Wisconsin-Stout
Menomonie, Wisconsin 54751
(715) 232-1464
Contact: Dr. Walt Pruitt

University of Texas Allied Health Sciences
Department of Rehabilitation Science
5323 Harry Hines Blvd.
Dallas, Tx. 75235
(214) 688-2860
Contact: Jack Dial

Appendix D

SOURCES OF INFORMATION CONCERNING VOCATIONAL ASSESSMENT

1. Materials Development Center (MDC)
Stout Vocational Rehabilitation Institute
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

MDC is a federally funded center that gathers, develops, and disseminates many publications concerning vocational evaluation of handicapped persons and work adjustment. Many publications mentioned in this manual may be bought at a nominal cost. In addition, they can loan materials for training in vocational evaluation. A Work Sample Manual Clearinghouse provides access to plans for work samples that schools can use or adapt to their own needs.

2. Research and Training Center
Stout Vocational Rehabilitation Institute
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

This center is associated with MDC. It does research and provides inservice training in the areas of vocational evaluation and work adjustment. Publications are also available from the R and T Center in vocational evaluation. Send to the above address for an order list.

3. North Texas State University
Center for Rehabilitation Studies
North Texas State University
Denton, Texas 76203
(817) 788-2488
Contact: Dr. Clinton Wainwright

NTSU has designed a model vocational evaluation program and established one of the ten graduate training programs in the nation in vocational evaluation for handicapped persons. Options exist for a minor in vocational evaluation as part of a master's or doctoral degree in vocational education and similar arrangements with the special education department are also being explored.

NTSU also provides on and off campus in-service training in vocational evaluation.

4. Vocational Evaluation and Work Adjustment Association
1522 K Street
Washington, D.C. 20005

The Vocational Evaluation and Work Adjustment Association is the professional organization of individuals interested and involved in the vocational evaluation/assessment of handicapped persons. As a division of the National Rehabilitation Association, it publishes a professional journal, the VEWAA Bulletin.

5. Inter-professional Task Force on Vocational Assessment in Schools
Vocational Evaluation Program
Department of Counselor Education
Mississippi State University
P.O. Drawer GE
Mississippi State, Mississippi 39762
(601) 325-3331
Contact: Dr. Michael Peterson

An inter-professional task force is in the process of considering national issues related to vocational assessment/evaluation in schools and is developing working and position papers concerning these issues. This task force is composed of committees in the Vocational Evaluation and Work Adjustment Association, the National Association of Vocational Education Special Needs Personnel (NAVESNP) (a sub-division of the American Vocational Association), and the Division for Career Development (a division of the Council for Exceptional Children).

APPENDIX E

INDIVIDUAL VOCATIONAL EVALUATION PLAN

Appendix E

INDIVIDUAL VOCATIONAL EVALUATION PLAN

EVALUEE: ____________________ DATE: ______________ EVALUATOR: ____________________

*	QUESTIONS	*	METHODS	DATE	PERSONS INVOLVED	PLAN MODIFICATION	RESULTS

APPENDIX F

WORK RELATED BEHAVIOR ASSESSMENT

ON-THE-JOB RATING FORM

Appendix F

WORK RELATED BEHAVIOR ASSESSMENT

Name: ______________________ Date: ______________________

Teacher: ______________________ Class: ______________________

Rate the following behaviors according to the following scale:

1-Strongly disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly agree

ITEM	RATING	COMMENTS
Learning style.		
Follows written directions	1 2 3 4 5	
Follows oral directions	1 2 3 4 5	
Follows directions with demonstration	1 2 3 4 5	
Follows directions with physical guidance	1 2 3 4 5	
Good attention span	1 2 3 4 5	
Attitude.		
Likes this class	1 2 3 4 5	
Works well under supervision	1 2 3 4 5	
Eager to learn	1 2 3 4 5	
Works well alone	1 2 3 4 5	
Works well with others	1 2 3 4 5	
Physical characteristics.		
Has good grooming	1 2 3 4 5	
Good dexterity and coordination . . .	1 2 3 4 5	
Can handle the job physically	1 2 3 4 5	

Needed modification: ______________________

____

Other comments: ______________________

____

Appendix F

ON-THE-JOB RATING FORM

Job: ______________________ Student: ______________________

Date: ______________________ Rater: ______________________

CHARACTERISTICS	RATING		
	Low	Average	High
Social skills.			
1. Communication with others.			
2. Employee and customer relations.			
3. Independent worker.			
4. Good team worker.			
Basic skills.			
5. Works at a consistent rate of speed.			
6. Good attendance.			
7. Stays on schedule.			
Performance on job.			
8. Accuracy			
9. Dexterity			
10. Decision-making ability.			
11. Follows directions.			
12. Memory			
13. Safety skills.			
Tolerance.			
14. Repetitiveness.			
15. Perseverence			
16. Physical stamina.			

APPENDIX G

VOCATIONAL PLANNING GUIDE

Appendix 6

VOCATIONAL PLANNING GUIDE

STUDENT: ______________________ GRADE: ______________ DATE: ____________

MY I E P = INDEPENDENCE + EMPLOYMENT + PAYCHECK ($)

I. NAME THREE JOBS OR CAREERS THAT YOU WOULD LIKE TO TRY.

II. NOW LIST THE THINGS YOU WILL HAVE TO DO OR LEARN SO YOU CAN BE SUCCESSFUL AT EACH JOB OR CAREER.

1.			
2.			
3.			
4.			
5.			
6.			
7.			

III. CIRCLE THOSE ITEMS WHICH YOU THINK YOU CAN DO IN A SCHOOL YEAR.

Guidelines for using: (1) Students should be given an explanation of why they are completing the guide and how it will be used. (2) Students should be told that the information may be shared with others. (3) Students should be told that they can change their minds about what they say.

(Adapted from Project KEYE, Klein Independent School District, Spring, Texas 77379)

APPENDIX H

STUDENT INTERVIEW FORMAT

Appendix H

(Adapted from form developed at Region XX Education Service Center.)

STUDENT INTERVIEW FORMAT

Name: ______________________________ Date: ______________________________

Age: ____________ Address: _________ Grade: ___________ Age: _____________

Attitudes toward handicap.

1. Do you have any sort of handicap?
2. Are you in a special education program? Which one? Why?
3. How do you feel about being in this program?
4. How do your family and friends feel about it?

Interests and activities.

5. What do you do in your leisure time? Sports? Hobbies? Church? etc.
6. Do you have any jobs at home? What?
7. What job do you think you would like to do and be good at?
8. What job(s) do you really think you would not like? Why?

Occupational and Career Awareness.

9. Name as many jobs as you can. (up to 15)
10. Name three jobs available in a supermarket.
11. What are ways to find about job openings?
12. What do employers look for when they hire someone?
13. What are some reasons people get fired from jobs?
14. What would an employer like about you? Not like?
15. What should you do if you are going to be late or absent from work?

STUDENT INTERVIEW FORMAT, cont'd.

Work and classroom preferences.

16. What teachers do you like best? Why? Which least? Why?

17. Do you like to work by yourself or with a group?

18. On a job, would you rather sit most of the time or move around a lot?

19. Would you rather work outside, inside, or both?

20. How would you feel about working where it is cold? Hot? Wet? Where there are dangerous things about?

21. What kinds of people do you not like to work with?

Educational interests.

22. What courses would you like to take? Which do you not want to take?

23. Would you like to enroll in vocational training now or later? What?

Functional skills.

24. If you lived by yourself and had a job, what are some of the things you would have to spend your money on each month?

25. How much does it cost for groceries for two people each week if you cook at home?

26. Can you use a telephone? How do you dial emergency?

27. If you had a job, how would you get to work? Can you drive?

28. Do you go shopping by yourself? What do you buy?

Family.

29. What do your folks feel about you working?

30. Do they trust you?

APPENDIX I

PICTURE INTEREST INVENTORY

VERBAL INTEREST INVENTORY

TEST - DISABILITY MATCHES

APTITUDE TESTS

DEXTERITY/COORDINATION TESTS

TEST

PICTURE INTEREST INVENTORY	EMR	TMR	DEAF	BLIND	ED	LD
1. Comparative Career Search	X	X	X		X	X
2. AAMD Reading Form	X	X				
3. Geist Picture Interest Inventory	X		X		X	X
4. Picture Interest Exploration Survey	X		X		X	X
5. Valpar Vocational Interest	X	X				
6. Wide Range Interest Opinion Test	X	X	X		X	X
7. Vocational Interest and Sophistication Assessment (VISA)	X	X				
8. VESEP Interest Scramble Board	X	M	X		X	X
9. PAYES	X		X	M	X	X

PICTURE INTEREST INVENTORIES

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN.			SCORE		
				GP	IND	TIME	HAND	M	TIME
Comparative Career Search Indiana Career Resource Center 1205-09 S. Greenlawn South Bend, Indiana 46614 (219) 289-2851	Sound/filmstrip-$65 Sound/slide $150.00 (Include 200 answer sheets .08¢ each).	72 sets of paired pictures of jobs are shown and most liked selected.	All especially 14 and older	X	X	40 min.	X	X	
AAMD Reading-Free Vocational Interest Inventory AAMD 5201 Connecticut Ave., NW Washington, D.C. 20015	$1.25 per student	Separate male/female forms. Most liked of three pictures circles/ 55, males 40, females. Designed for MR's.	MR 14+	X	X	10-15 min.	X		10 min.
Geist Picture Interest Inventory Western Psychological Services 12031 Wilshire Blvd. Los Angeles, CA. 90005	kit (10) $9.50 - - - - - - - - Male: 25 for $8.50 Female: 25 for $7.50	Separate male/female forms. Selects 1 out of three pictures showing jobs on activities. Read questions under pictures - 3rd grade.	LD ED High MR 8th	X	X	15-20 min.	X		5-10 min.
Picture Interest Exploratory Survey Career Education Media P.O. Box 27083 Tempe, Arizona 85282	Initial: $350. Per student: $.11	Series of slides showing hands working. Student circles number of pictures they like on answer sheet.	LD High	X	X	30 min.	X		10 min.

PICTURE INTEREST INVENTORIES

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN			SCORE		
				GP	IND	TIME	HAND	M	TIME
Vocational Interest and Sophistication Assessment Ohio State University Mental Retardation Training Program Columbus, Ohio 43210	Initial: $7.00 25 male for $2.50 25 female for $2.50	Measures interest and job knowledge of retarded persons.	MR 14+		X	30 min.	X		15 min.
(PAYES) Program for Assessing Youth Employability Skills Program of Vocational Education Educational Testing Service Princeton, NJ 08540	Package of 10 for $33.00	Part of a test measuring 3 attitudes job holding skills, attitudes towards supervision, self-confidence, 3 cognitive; job knowledge job seeking skills reasoning vocations interest. Pictures & 4th & 5th grade reading level.	High MR LD ED Disadv. 14-30	X	X	1-2 hr.	X		15 min.
(VESEP) Vocational Education Special Education Career Education Resources 3rd Floor, Erickson Hall Michigan State University East Lansing, MI. 48824	App. $25.00	Part of several resources designed for teacher use. Two packets of 50 pictures are arranged on a board (5 squares by 10 squares) from most like to least liked.	All	X	X	30-60 min.	X		15-20 min.
Vocational Interest Screening: VALPARTHY VALPAR Corporation 3801 E. 34th Street Tuscon, Arizona 85721	Initial around $3,100.00	Pairs of color slides. Student circles liked picture in booklet with same picture on slide.	MR	X	X	30-40 min.	X	X	20 min.
Wide Range Interest Opinion Test Jastak Assessment Systems Inc. 1526 Gilkin Avenue Wilmington, Delaware 19306	Around $75.00 initial	Students pick pictures in a spiral booklet - most liked and most disliked & circle on answer sheet. Profile on 18 occupational groups and 2 attitudes.	Age 5+ All	X	X	40-60 min.	X	X	10-15 min.

TEST

VERBAL INTEREST INVENTORY	EMR	TMR	DEAF	BLIND	ED	LD
10. Ohio Vocational Interest Survey	M		X	M	X	X
11. Comprehensive Career Assessment Scale	M		X	M	X	X
12. California Occupational Preference System (COPS)	M			M	X	X
13. Minnesota Importance Questionnaire (MIQ)	M		X	M	X	X
14. Individual Career Exploration	X		X		X	X
15. Career Awareness Inventory (CAI)	M		X		X	X
16. Self-Directed Search	M		X	M	X	X

VERBAL INTEREST INVENTORIES

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN			SCORE		
				GP	IND	TIME	HAND	M	TIME
Ohio Vocational Interest Survey The Psychological Corp. 757 Third Avenue New York, New York 10017	$2.90 specimen set.	Designed to help high school students. Respond to job activities on a scale ranging from "like very much" to "dislike very much.	LD Blind OH+ Grade 8-12	X	X	90 min.		X	
Comprehensive Career Assessment Scale Learning Concepts 2051 N. Lamar Austin, Texas 78705	(1) Test booklet $1.95/ each (2) 25 profiles for $3.75	75 job titles on which students indicate degree of familiarity and interest on a 1-7 scale.	All Grade 3-12	X	X	15 min.	X		15 min.
(COPS) California Occupational Preference System Educational and Industrial Testing Service P.O. Box 7234 San Diego, CA. 92107	Manuals $2.00 25 booklets for $13.00 Cluster Charts of 14- $9.95	3 forms: COPS-1 COPS-R. Student asked to rate degree of interest in listed job activities.	LD	X	X	60 min.	X	X	Student scored.
Minnesota Importance Questionnaire (MIQ) Vocational Psychology Research Elliott Hall University of Minnesota Minneapolis, MN. 55455	Around $2.00 per student. computer scored.	Measures vocational reinforcer needs & compares to reinforcers available in job computer profile ranking occupational groups in order of preference.	LD	X	X	40-50 min.		X	

VERBAL INTEREST INVENTORIES

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN			SCORE		
				GP	IND	TIME	HAND	M	TIME
Individual Career Exploration Scholastic Testing Service 480 Meyer Road Bensenville, IL. 60106	Initial: $26.00 20 for $7.50	Choice of pictures showing activities. Explores 8 career groups and 6 decision levels.	All Grade 6-12	X	X	20 min.	X		10 min.
Career Awareness Inventory Scholastic Testing Service 480 Meyer Road Bensenville, IL. 60106	$13.00 for 20 students	Written statements respond to pictures. Part 1- identifies jobs & workers from picture; Part 2 - awareness of educ. requirements; Part 3- fam w/ specific workers, etc.	Any	X	X	60-90 min.		X 180 per student	
Self-Directed Search Consulting Psychologist's Press 577 College Avenue Palo Alto, CA. 94306	25 for $17.50	Self-administered vocational exploration. Fill out booklet & obtain code. Look up jobs in an "Occupations Finder" booklet.	LD ED OHI	X	X	40-60 min.	X		NA

TEST - DISABILITY MATCHES

TEST	EMR	TMR	DEAF	BLIND	PHYSICAL	LD	ED
MULTI-APTITUDE BATTERIES							
1. Differential Aptitude Test Battery (DAT)			X	M (some)	X	X	X
2. General Aptitude Test Battery (GATB)	X		M	M (some)	X (some)	X	X
3. Non-reading Aptitude Test Battery (NATB)	X	X	X	M (some)	X (some)	X	X
4. Armed Services Vocational Aptitude Battery (ASVAB)			X (good reader)		X	X	X
5. Career Ability Placement Survey (CAPS)			X (good reader)	M	X	X	X

TEST	EMR	TMR	DEAF	BLIND	PHYSICAL	LD	ED
SINGLE APTITUDE TESTS							
6. Bennett Mechanical Comprehension Test	M		X		X	X	X
7. Minnesota Clerical Test	X		X		X	X	X
8. Revised Minnesota Paper Form Board Test			X		X	X	X
COMPUTER-ASSISTED MATCH							
9. Job Matching System	X		M	M	X	X	X
10. VOCOMP	X	X	X	X	X	X	X

APTITUDE TESTS

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN GP	IND	TIME	SCORES HAND	M	TIME
I. MULTI-APTITUDE BATTERIES									
1. Differential Aptitude Test Battery (DAT) The Psychological Corp. 757 Third Avenue New York, New York 10017		Paper and pencil test with 9 aptitude scores (1) verbal reasoning; (2) Numerical ability; (3) abstract reasoning; (4) clerical speed & accuracy; (5) mechanical reasoning; (6) spatial relations; (7) spelling; (8) language usage; (9) general mental ability; Sixth grade reading level. Separate answer sheet.	LD Grade 8-12	X	X	4 hrs.	X	X	15 min.
2. General Aptitude Test Battery (GATB) Contact local State Employment Service. TEC certifies people to give this test.		12 subjects which provide 9 aptitude scores (1) general learning ability; (2) verbal; (3) numerical; (4) spatial perception; (5) form perception; (6) clerical perception; (7) motor coordination; (8) finger dexterity; (9) manual dexterity.	All except low grades Grades 9+		X	2½ hrs.	X	X	20 min.
3. Non-reading Aptitude Battery (NATB) Same as GATB		A non-reading version of the GATB (see above). May have technical problems. Some complain of complexity of instructions.	Low readers Grades 9+	X	X	3½ hrs.	X	X	20 min.
4. Armed Services Vocational Aptitude Battery (ASVAB) Contact local military recruiter. Note: TEST INFORMATION AND NAMES AND ADDRESSES OF STUDENTS ARE SENT TO THE DEPARTMENT OF DEFENSE.	Free thru military service recruiter	Paper & pencil. 12 aptitude scores; general information; numerical; attention to detail; work knowledge; arithmetic reasoning; space perception; math knowledge; electronic information; mechanical comprehension; general science; shop information; automotive information.	LD 7th grade reading	X		3 hrs.		X armed services.	

APTITUDE TESTS

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN			SCORES		
				GP	IND	TIME	HAND	M	TIME
5. Career Ability Placement Survey Edits Publishers P.O. Box 7234 San Diego, CA. 92107	$54.00 for 30.	Paper & pencil. Following aptitudes. Mechanical reasoning; verbal reasoning; numerical; language; word knowledge; perceptual speed and accuracy; manual speed and accuracy.	8+ LD Good readers.	X	X	40 min.	X	X	20 min.
SINGLE APTITUDE TESTS									
6. Bennett Mechanical Comprehension Test	Booklets: 25 for $13.50. answer sheets 50 for $6.25. Manual & score keys; $1.65/ea.	Mechanical: Similar to mechanical reasoning of DAT. Student answers questions about a picture. Fifth grade reading level.	All except reading level can be read.	X	X	30 min.	X		5 hrs.
7. Minnesota Clerical Test Psychological Corp. 757 Third Avenue New York, NY 10017	Booklets: 100 for $24.00.	Clerical: test of speed & accuracy in tasks related to clerical work. Two parts: number and name checking.	All	X	X	15 min.	X		5 min.
8. Revised Minnesota Paper Form Board Test	Booklets with manual and key 25 for $7.00.	Form perception: 20 min. speeded test consisting of 64 two dimensional diagrams students pick one of five figures that match the sample timed test.	LD; Ed	X	X	20 min.	X	X	5 min.

DEXTERITY/COORDINATION TESTS

NAME/ADDRESS	COST	DESCRIPTION	POPULATION	ADMIN			SCORES		
				GP	IND	TIME	HAND	M	TIME
1. Bennett Hand-Tool The Psychological Corp. 757 Third Ave. New York, N.Y. 10017		Assessment of manual dexterity with tools. Student uses wrench & screwdriver to disassemble nuts & bolts, remove, and replace on new brd.	All		X	5-15 min.	X		5 min.
2. Crawford Small Parts The Psychological Corp. 757 Third Ave. New York, N.Y. 10017		Fine motor using small tools. Two parts each w/ practice. (1) place pins in hole w/ tweezers and place collars over; (2) screw small screw in holes w/ screwdriver	All		X	15-30 min.	X		5 min.
3. Pennsylvania Bi-manual Worksample. Educational Test Bureau American Guidance Serv. Publishers Bldg. Circle Pine, Minn 55014	$5[illegible].00 $1.80 per 50 forms	Hand and finger dexterity. Two parts: assemble nuts and bolts: disassemble.	All Age 15+		X	15-20 min.	X		5 min.
4. Purdue Pegboard Science Research Asso. 259 East Erie Chicago, Illinois 60610		Manual and finger dexterity: pegboard with 4 cupts and 2 rows of 25 holes in which pins are inserted in a timed period.	All		X	10-15 min.	X		5 min.
5. Minnesota Rate of Manipulation American Guidance Ser. Publishers Bldg. Circle Pines, Minn 55014	$93.00 $3.40 for 50 forms	Manual dexterity. Wooden, collored discs are manipulated through several procedures: placing, turning, displacint, turning and placing.	All	X	X	1 hr.	X		5 min.
6. Minnesota Spatial Rels. Tests American Guidance Ser. Publishers Bldg. Circle Pines, Minn 55014	$260.00	Spatial perception. Four boards with holes of various shapes. Place shapes in holes in all 4 boards	All		X	20-30 min.	X		5 min.

APPENDIX J

BASIC VOCATIONAL ASSESSMENT REPORT

Appendix J

BASIC VOCATIONAL ASSESSMENT REPORT

I. Student Information

Student name: ______________________________________

Grade: ________________ Handicap: ____________________

Present program placement: __________________________

Date: ____

II. Vocational Assessment Questions

1. ____
2. ____
3. ____
4. ____
5. ____

III. Special Education Test Data

Diagnostician: _____________________________________

Test	Results	Date

Comments: ____

____

____

IV. Student Interview

Interviewer: ____________________ Date ________________

BASIC VOCATIONAL ASSESSMENT REPORT, cont'd

Interests: ______________________________

Career Awareness: ______________________________

Family Support: ______________________________

Comments: ______________________________

____

V. Parent Interview

Interviewer: ________________ Date: ______________

Career plans for student: ______________________________

____

Support for working: ______________________________

____

Comments: ______________________________

____

VI. Information Gathered During Instruction

Type Information	Source	Skills	Needs
Mental Abilities			
Functional Academic Skills			
Sensory Abilities			
Physical Skills			
Learning Style			
Functional Life Skills			
Vocational Interests			
Prevocational Skills			
Work Attitude and Behavior			

VII. Aptitude and Interest Testing

Test Administrator ______________________________

Location: ______________________________

BASIC VOCATIONAL ASSESSMENT REPORT, cont'd

Test Used	Date	Results

Interpretation and Comments: ____________________

VIII. Answers to Assessment Questions

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________

IX. Recommendations

Is Comprehensive Vocational Assessment needed?

____ Yes: Why? ____________________

____ No: Why not? ____________________

Vocational Program/ Placement	Functional Life Skills	Related Academics

Signed: ____________________
Vocational Assessment Specialist

APPENDIX K

REFERRAL FORM

Appendix K

REFERRAL FORM

Regional Vocational Evaluation Center
Fine Arts Bldg. Room 119
Odessa College
201 West University, Odessa, Texas 79762
(915) 337-5381 Extension #449

I. Client Name: ______________________________ Age: ________

Address: ____________________________ Phone: ______________

____

State Job/Training Goals or Interests: ______________________

____

Disability and Presenting Problem or Needs: __________________

____

____

____

II. Referral Agency: ____

Contact Person: ____

III. Referral Questions

☐ Can the client be employed as a ___________________________?

☐ Should the client enter training to be a ____________________ ______________? Where? ______________________________

☐ What support services does the client need to be successfully trained and/or employed?

☐ What life skills training (if any) does the client need in order to be trained or employed?

☐ Does the client have adequate work adjustment behaviors to be employed?

REFERRAL FORM, cont'd

☐ In which area(s) can the client be employed or trained?

☐ Other concerns or questions: ______________________________

IV. Referral Papers: Check those sent with each client/evaluee.

☐ Referral form

☐ Medical

☐ Psychological

☐ Social/vocational history

☐ Requisition for services

APPENDIX L

TEACHER NOTICE

PARENT NOTICE

Appendix L

TEACHER NOTICE*

TO: ______________________ FROM: ______________________

FROM: Jim, Vocational Assessment Specialist

RE: VOCATIONAL EVALUATION FOR ______________________

Dear Teacher:

______________________ is scheduled to report for vocational evaluation on the following dates: ______________________.

Please do not mark this student absent on these dates. If the student does not report to the vocational evaluation, the high school attendance office will be notified.

We ask your cooperation in providing the student with material that will be covered in class during the absence.

For further information please contact the resource counselor in your building.

Sincerely,

____

Vocational Assessment Specialist

cc: Attendance office

*Developed by Project KEYE, Spring, Texas.

Appendix L

PARENT NOTICE*

Linda, Vocational Assessment Specialist
Big School District
Little, Texas 40000

Dear Parent:

Your (son/daughter) is being referred for a comprehensive vocational assessment to determine vocational interests, abilities, and aptitudes. A plan for helping your child develop vocational skills will be based on this assessment and other information.

During vocational assessment, students are tested in small groups with a variety of techniques including interest surveys, "hands-on" job samples, education assessments, etc. Some students prove skillful in complex tasks such as assembling telephone apparatus; others find success in work requireing a high degree of creativity; while still others find repetitive tasks to be a challenge.

Career information gained from the testing is shared with the student. A format report is also given to the school to assist in planning future school programs and training for employment.

The vocational assessment will occur on the following dates; _____________ ____________, at the following location:______________________________.

We appreciate your cooperation in this process. Please contact me or your school if you have any questions.

Sincerely,

Linda
Vocational Assessment Specialist

*Adapted from form developed by Project KEYE, Klein ISD, Spring, Texas.

APPENDIX M

VOCATIONAL EVALUATION REPORT FORMAT

Appendix M

VOCATIONAL EVALUATION REPORT FORMAT

The vocational evaluation report should respond to specific assessment questions developed in the individual assessment plan and provide assessment information in several areas. A general format will include the following:

A. INDENTIFYING INFORMATION.

B. REASON FOR REFERRAL; LISTING ASSESSMENT QUESTIONS.

C. LIST OF ASSESSMENT INSTRUMENTS AND TECHNIQUES USED TO ANSWER ASSESSMENT QUESTIONS.

D. RESULTS.

E. ANALYSIS OF TEST RESULTS IN TERMS OF ASSESSMENT QUESTIONS.

The report will usually include information concerning strengths and needs in each of the following areas:

1. Work behaviors, attitudes, and habits.
2. Vocational interests and career awareness.
3. Specific vocational skills and aptitudes.
4. Physical skills.
5. Community and independent living skills.
6. Vocational related academic skills.

F. RECOMMENDATIONS

The report may include recommendations for:

1. Program placement----both vocational and academic.
2. Specific instructional goals, objectives, and suggested methods.
3. Prevocational and life skills training needed.
4. Support services related to vocational training.
5. Suggestions for job or curriculum modifications.

APPENDIX N

TENTATIVE WORK SAMPLE SYSTEM-DISABILITY MATCHES

REVIEW OF WORK SAMPLE SYSTEMS

Appendix N

TENTATIVE WORK SAMPLE SYSTEM-DISABILITY MATCHES

WORK SAMPLE	EMR	TMR	LD	ED	DEAF	BLIND	PHYSICAL
1. CHOICE	M		X	X	M	M	M
2. COATS							
a. Job Matching System	M		X	X	M		X
b. Employability Attitudes	M		X	X	M		X
c. Work Sample Systems	M		X	X	M	M	X
d. Living Skills Systems	M		X	X	M	M	X
3. HESTER	M		X	X	X	M	X
4. JEVS	M		X	X	X	M	X
5. McCARROW-DIAL	X	T	X	X	X	M	X
6. MICRO-TOWER	X		X	X	M	M	X
7. PRE-VOCATIONAL READINESS TEST	X	T					
8. PROJECT DISCOVERY	X	M	X	X	M	M	X
9. TALENT ASSESSMENT PROGRAM	X	M	X	X	M	M	X
10. TOOL TECH	X	M	X	X	M	M	X
11. TOWER	M		X	X	M	M	X
12. VALPAR	X	M	X	X	M	M	T
13. SINGER	M		M	M	M		M
14. VIEWS	T	T			M	M	
15. VITAS	X		X	X	M	M	X
16. BROADHEAD-GARRETT	X		X	X	M	M	X
17. WREST	T	T			M		

X = usable M = usable with modifications T = targeted for this specific group

CARRELS FOR HANDS-ON INDIVIDUALIZED CAREER EDUCATION
(CHOICE)

Career Research Corporation
P.O. Box 151277
Sal Lake City, Utah 84115

Target Group: All

SUMMARY:

CHOICE consists of a series of 50 self-instructional carrels (job samples) that combine occupational exploration and assessment through hands-on experiences. Work modules related to specific occupations are used. Flip charts are used to provide instructions for work tasks. Modules are related to the occupational groups of the Dictionary of Occupational Titles. Some examples include: aerospace engineer, carburetor mechanic, announcer, drafter, foundry worker, leather worker, sheet metal worker, electrician, plastics worker, etc.

PROCESS:

Students use a written checklist to state how much they like and would like to explore each job sample. Specific carrels are then chosen for exploration/assessment activities. Carrels generally take from one to three fifty minute class periods to complete.

REPORTS:

Reporting forms are apparently minimal. A general "Career Profile" is used for responses on each module.

COMMENTS:

CHOICE is not an assessment instrument per se. However, some rough assessment information can be gained. These units may be used in combination with occupational exploration and assessment classes. Local norms should be developed, and consumable supplies must be supplied by the user.

COST: Each unit/module ranges from $950.00 to $1,400.00.

COMPREHENSIVE OCCUPATIONAL ASSESSMENT AND TRAINING SYSTEM (COATS)

Prep, Incorporated 1575 Parkway Avenue Trenton, New Jersey 08628	Target Group: Secondary students; all disabilities. Blind and deaf will have difficulties.

SUMMARY

COATS is the most comprehensive vocational assessment system available and is composed of four components:

(1) Job Matching System: provides computer printout match of person to training or jobs based on input in response to 15 audio-visual cartridges that deal with preferences, experience, and abilities.

(2) Employability Attitudes System: determines attitudes and behaviors and compares them with attitudes that employers see as important. Six audio-visual cartridges containing "real life" situations are used.

(3) Work Sample System: contains 26 work samples developed around the USOE job clusters. An audio-visual cartridge gives step-by-step instructions. They can be either hand or computer scored. Some of the work samples include: electrical; automotive; clothing and textiles; sales; medical services; etc.

(4) Living Skills System: six audio-visual cartridges contain 18 "adventures" used to evaluate the following skills and knowledges: reading, writing, computation, problem-solving, speaking-listening, consumer economics, occupational knowledge, community resources, health, and government-law.

PROCESS:

The four components may be used independently of each other. The JMS may be used to screen the student for the most appropriate work samples which may be given subsequently. 52-93 hours are required to complete all 26 work samples. However, usually only 4-10 are used for one person. All components except the work samples may be administered to small groups. An eighth grade reading level is required for use of written materials though these can be read to students.

REPORTS:

All reports are computer scored and returned with a detailed interpretive print-out. The Work Samples, however, may be hand scored. Turn-around time for the computer reports is around one week.

COMMENTS:

COATS is presently the most comprehensive vocational evaluation system available and appears to be based on a comprehensive and sound theoretical base. Its main drawback is its cost. However, component parts may be purchased separately.

COST:	Job Matching System	$2,080.00
	Employability Attitudes	$1,285.00
	Living Skills	$1,275.00

Work Samples--range from $435.00 to $1,450.00 each with consumable supplies provided for 20 persons. Average cost per person for scoring is $5.00.

HESTER EVALUATION SYSTEM

Evaluation Systems, Incorporated
640 N. LaSalle Street
Suite 698
Chicago, Illinois 60610

Target group: All

SUMMARY:

26 separate performance and paper-and-pencil tests are used to measure 28 ability areas that are classified into seven groups: (1) uni-lateral

motor ability; (2) bi-lateral motor ability; (3) perceptual; (4) perceptual motor coordination; (5) intelligence; (6) achievement; (7) physical strength. These scores are intended to relate the client's abilities to the data, people, things hierarchy of the Dictionary of Occupational Titles.

PROCESS:

The components of the Hester are given in a testing atmosphere. Evaluee input and feedback are of little importance. The battery can be administered in 5-7 hours. Some tests are individual while others can be given in small groups.

REPORTS:

Standardized forms are used to input data which are processed by computer via two means: (1) mail--cost of $15.00 per student; (2) direct computer input via a terminal. The computer print-out contains four major sections: demographic information; scores for each test; data-people-things hierarchies showing client level of functioning; specific DOT job titles sorted from most to least feasible.

COMMENTS:

The HESTER uses a trait-factor approach to vocational evaluation. The lack of information concerning validity and the procedure for data processing are of concern. Botterbusch (1980) recommends use of this system for "initial screening at the beginning of the vocational evaluation process."

COST: $7,200.00 for all equipment, paper-and-pencil tests, data sheets, and forms for 100 clients, and training in its use.

JEWISH EMPLOYMENT AND VOCATIONAL SERVICE

WORK SAMPLE SYSTEM (JEVS)

Vocational Research Institute Jewish Employment and Vocational Service 1700 Samson Street, 9th Floor Philadelphia, PA 19103	Target group: Disadvantaged and other special needs.

SUMMARY:

JEVS is based upon a trait-factor approach that uses work samples to assess aptitudes and behaviors as related to the worker trait groups of the Dictionary of Occupational Titles. Twenty-eight work samples arranged in ten worker trait groups are used: handling; sorting, inspecting, measuring, and related work; tending; manipulation, routine checking and recording; classifying, filing, and related work; inspecting and stock checking; craftsmanship and related work; drafting and related work; and costuming, tailoring, and dressmaking.

PROCESS:

The 28 work samples are administered in order of difficulty. Work sample administration resembles a formal testing situation and student input and feedback are not emphasized. Six or seven full days are required to complete all 28 work samples.

REPORTS:

Standardized forms are used for each work sample, daily observations, feedback interview, and final report.

COMMENTS:

The JEVS is a well designed work trait evaluation system that attempts to relate worker characteristics to the DOT. Training is required for purchase of the system. The use of the trait-factor approach limits its usefulness in student occupational exploration since many of the tasks are somewhat abstract and difficult to relate to specific jobs.

COST: $7,975.00 includes all work samples, forms, shipping, and tuition for training one person in Philadelphia. This is required and transportation expenses and room and board must be paid by the purchaser.

McCARRON-DIAL WORK EVALUATION SYSTEM (MDWES)

McCarron-Dial Systems
P.O. Box 45628
Dallas, Texas 75245

Target group: Developmentally disabled.

SUMMARY:

This system was designed to predict client program placement in activity centers, sheltered workshops, or competitive placement. Five factors are assessed: (1) verbal-cognitive; (2) motor; (3) sensory; (4) emotional; and (5) integration-coping. The tests used to assess these skills include: the Wechsler or Standford-Binet intelligence tests; the Peabody Picture Vocabulary Test; Bender Motor Gestalt Test; Haptic Visual Discrimination Test; McCarron Assessment of Neuro-muscular Development (MAND); and two observation forms--the Observational Emotional Inventory (OEI) and Behavior Rating Scale (BRS). The Street Survival Skills Questionnaire (SSSQ) has recently been added as a measure of adaptive behavior.

PROCESS:

All assessment except the OEI and BRS may be done in 4-6 hours in an individual formal testing situation. The behavior ratings are designed for use in a sheltered workshop setting over a period of one week. None of the tests requires the evaluee to read.

REPORTS:

Standardized forms are used including a profile to be used with the final report. The manual gives examples of narrative reports.

COMMENTS:

The McCarron-Dial was designed for the purpose of assessing the ability of mentally disabled persons to function at various levels of vocational ability. Botterbusch (1980) suggests that the MDWES may be best used as "a preliminary assessment device for assessing general levels of functioning prior to" more comprehensive assessment.

COST: The five separate kits that make up the MDWES are priced:

Auxiliary (PPVT, Bender, etc.)	$168.00
Haptic	$296.00
MAND	$236.00
SSSQ	$125.00
HMMT	$490.00
	$1,415.00

MICRO-TOWER

Micro-Tower
ICD Rehabilitation and Research
340 East 24th STreet
New York, N.Y. 10010

Target group: All special needs groups except TMR.

SUMMARY:

This system is basically a group aptitude test that uses work sample methods to measure seven aptitudes defined in the Dictionary of Occupational Titles. Thirteen work samples are used to measure these aptitudes. These include: (1) Motor: electronic connector assembly (F), bottle capping and packing (M) and lamp assembly (K); (2) Spatial: blueprint reading (S) and graphics illustration (S,K); (3) Clerical perception: filing (Q), mail sorting (Q,M), zip coding (Q) and record checking (Q); (4) Numerical: making change (N) and payroll computation (N); (5) Verbal: want ads comprehension (V) and message taking (V).

PROCESS:

These work samples are administered in small groups over a period of 15-20 hours. Instructions are given via evaluator demonstration and audi-cassette tape. No written instructions are used. There are five steps in each work sample: occupational orientation, basic instructions, practice, timed evaluation, and self-evaluation.

REPORTS:

Standard forms are used to record performance and three forms are used for the final report. A computer print-out which relates results to specific jobs in the DOT is also available.

COMMENTS:

Micro-Tower uses a standardized psychological test approach to aptitude assessment. The group administration maximizes evaluator time but may hinder individual attention.

COST: The cost depends on the number of evaluees tested in a group, since each person requires a separate set of equipment. Prices below include forms for [illegible]00 persons per work sample.

# Persons tested	Price
4	$7,943
7	$9,023
10	$10,103
20	$13,703
30	$17,303

PRE-VOCATIONAL READINESS TEST (VALPAR #17)

VALPAR Corporation 3801 E. 34th Street Tucson, Arizona 85713	Target Group: Retarded.

SUMMARY:

VALPAR #17 is designed to assess the functional skills of mentally retarded persons. The system contains five areas, each of which has several components: (1) Developmental assessment: measurement of pattern/color discrimination and manipulation, manual coordination, work range/dynamic strength/walking, and matching/vocational knowledge/measurement; (2) Workshop evaluation: a simulated assembly process using 3 persons; (3) Vocational interest screening: a sound/slide interest assessment; (4) Social/interpersonal skills: two page rating form; (5) Independent living skills: transportation, money, skills, grooming, and living environments. Instructions and processes are designed for more severely mentally handicapped students.

PROCESS:

Most tasks are administered individually over around 5½ hours.

REPORTS:

Each of the five areas uses standardized, well designed forms for recording responses and scoring. An Individual Exit Profile provides a summary of all five areas.

COMMENTS:

The system is attractive and well designed. However, inadequate technical information is provided in the manual. The system appears to have the most potential for severely mentally retarded students.

COST: $3,200.00.

PROJECT DISCOVERY

Experience Education
401 Reed Street
Red Oak, Iowa 51566

Target group: All

SUMMARY:

Project Discovery was originally developed as a career exploration tool that could especially be used by special needs students. Some 27 modules have been developed that provide hands-on learning/exploration experience in the following career clusters: construction, transportation, business and office, marketing and distribution, communications and media, public service, agri-business and natural resources, consumer and homemaking, health occupations, personal services, and manufacturing. Project Discovery has recently made efforts to more systematically use these modules for vocational evaluation. Analysis has been done on each work module so that skills and abilities required for each module are described in terms of worker characteristics as described in the Dictionary of Occupational Titles.

PROCESS:

Students explore various modules in Project Discovery based on an Individual Assessment Plan. Student responses are recorded on a composite "Qualifications Profile" sheet which uses terms associated with the DOT. A worker interest survey and other resources are used to identify student interest. A publication entitled Classification of Jobs According to Worker Trait-Factors is used to compare the student profile to the profile required of various jobs of interest.

REPORTS:

Helpful reporting forms for each module and suggestions for compiling a final report are available.

COMMENTS:

Project Discovery employs a "direct observation" approach to vocational evaluation that is criterion-referenced. This approach easily combines exploration and assessment and relates these to terms in the DOT. The vocational evaluation manual provided is both thorough and practical.

COST: Modules vary in price from $50.00 to $1,950.00.

TALENT ASSESSMENT PROGRAMS (TAP)

Talent Assessment, Incorporated P.O. Box 5087 Jacksonville, Florida 32205	Target group: All except TMR.

SUMMARY:

TAP consists of ten tests of perceptual and dexterity skills that measure dexterity, visual and tactile discrimination, and retention of details. Results are related to job titles within the Dictionary of Occupational Titles. The ten tests included are: (1) structural and mechanical visualization, (2) discrimination by size and shape, (3) discrimination by color, (4) tactile discrimination, (5) fine dexterity without tools, (6) gross dexterity without tools, (7) fine dexterity with tools, (8) gross dexterity with tools, (9) flowpath visualization, and (10) retention of structural and mechanical detail.

PROCESS:

The TAP lends itself to a formal testing atmosphere and can be administered in around 2½ hours. Vocational exploration and evaluee involvement are minimal. All tests are individually administered and no reading is required.

REPORTS

A raw score form and profile sheet are used. The profile sheet contains a profile of the percentile scores for each work sample, a Talent Quotient (based on the total weighted results), and a space for a narrative report.

COMMENTS:

The TAP does not claim to assess all vocationally significant abilities; it assesses dexterity, retention, and discrimination abilities. Use of the TAP for vocational placement, therefore, must be complimented by additional assessment information.

COST: $3,100.00. Price includes delivery and on-site staff training.

TOOL TECHNOLOGY (MIND)

MIND, Incorporated
181 Main Street
Norwalk, Connecticut 06851

Target group: All

SUMMARY:

Tool Technology is not a vocational assessment system by design; although no norms are available, assessment information can be collected using Tool Technology. Tool Technology is basically an in-depth, hands-on audio-visual program that provides training in the use of basic hand tools. Modules are available in 16 areas: general screwdrivers, special screwdrivers, general wrenches, painting tools, hammers, rules, squares, and levels, hand drills, pliers, cutting tools, socket wrenches, hand saws, files and planes, meters and gauges, pipe fitting tools, micrometers and metric rules, squares, and levels.

PROCESS:

A student uses a videotape cartridge that directs him/her through a work activity involving small tools. The evaluator observes the student and makes notations concerning abilities on record forms.

REPORTS:

Standard forms are provided.

COMMENTS:

Tool Technology purports to relate tool use to worker trait groups in the DOT. The materials can be used for both assessment and prevocational training. In terms of assessment, they may be especially useful in determining whether a student can learn through an audio-visual format.

COST:		
	Combined instruction-assessment modules	$465.00 each
	Simulator board (1 per station)	95.00
	AV instrument	498.00
	Worksheet pads	4.00 each

THE TOWER SYSTEM

ICD Rehabilitation Research
340 East 24th Street
New York, N.Y. 10010

Target group: Disadvantaged
Disabled.

SUMMARY:

The TOWER SYSTEM contains 93 work samples arranged into 14 job training areas: clerical, drafting, drawing, electronics assembly, jewelry manufacturing, leather goods, machine shop, lettering, mail clerk, optical mechanics, pantograph engraving, sewing machine operation, welding, and workshop assembly. Unlike other work sample systems, TOWER does not sell hardware. Each program must construct its own sample from provided plans.

PROCESS:

Work samples are presented in order of complexity in each job area. Completion of all work samples takes approximately three weeks, but few complete all work samples. A fairly high reading level and somewhat sophisticated tasks minimize use with low literate and mentally retarded students. Use of a realistic work sample is emphasized, and significant vocational exploration may occur.

REPORTS:

Standardized forms are used. The three page final report contains work and personal characteristic ratings for each of the 14 job areas as well as a narrative report.

COMMENTS:

The TOWER is the oldest complete vocational evaluation system and was based on job analysis. The system relies heavily on written instructions.

COST: $300.00 for copies of work sample manuals and forms. Estimates to construct all work samples is $5,000.00. Training is required for purchase.

VALPAR COMPONENT WORK SAMPLE SERIES (VALPAR)

Valpar Corporation
3801 East 34th Street
Tuscon, Arizona 85713

Target group: All special needs; especially industrially disabled.

SUMMARY:

VALPAR currently consists of 16 individual work samples most of which attempt to measure single worker traits such as eye-hand-foot coordination. Work samples include: (1) small tools (mechanical), (2) size discrimination, (3) numerical sorting, (4) upper extremity range of motion, (5) clerical comprehension and aptitude, (6) independent problem solving, (7) multi-level sorting, (8) simulated assembly, (9) whole body range of motion, (10) tri-level measurement, (11) eye-hand-foot coordination, (12) soldering and inspection, (13) money handling, (14) integrated peer performance, (15) electrical circuitry and print reading, and (16) drafting. VALPAR is not a unified work sample system, and components may be purchased separately.

PROCESS:

Most work samples can be completed in one to two hours. Reading is required only for samples representing jobs that would require it. Modifications are available on some components (1,2,3,4,5,6,7,8,9,10) for use with the visually handicapped. Videotapes and signed instructions are available for deaf persons on VALPAR 1-16 except for 14. All work samples except 14 are individually administered. An evaluator gives verbal instructions and/or demonstrations, followed by timing and observation.

REPORTS:

A separate reporting form is used for each work sample. No suggestions or format are provided for a final report.

COMMENTS:

The VALPAR work samples are well constructed and appealing. It is not, however, integrated into a total system, but can be added to other evaluation instruments.

COST: Cost of work samples ranges from $495.00 to $990.00.

VOCATIONAL EVALUATION SYSTEM (SINGER)

Singer Educational Division
Career Systems
80 Commerce Drive
Rochester, New York 14623

Target group: All

SUMMARY:

Singer includes 25 work samples each of which is sold in a separate carrel. Each carrel contains an audio-visual instrument and all the tools needed to complete the work sample. Each work sample relates to a specific cluster of occupations. Work samples include: bench assembly, plumbing and pipe fitting, woodworking, cooking and baking, small engine service, medical service, cosmetology, data calulation and recording, soil testing, photo lab technician, household and industrial wiring, welding and brazing, and office services.

PROCESS:

Each work sample is individually administered and takes an average time of 2½ hours per work sample. All instructions are given via a filmstrip/tape. A slide interest inventory is given to help determine which work samples to take. Each work sample begins with occupational information concerning the work area being assessed. This is followed by step-by-step instructions for the task. Time and quality are scores. Work samples can be used in any order. Some filmstrip modifications are available for the deaf.

REPORTS:

Standard forms are used. No recommended final report is provided.

COMMENTS:

The Singer system provides an excellent combination of occupational exploration and assessment. Concerns include the following: the use of audio-visual instructions actually appears to assess a person's ability to learn via this format as much as their ability to do or learn a task; work samples are often rather lengthy; and the audio-visual equipment tends to break down relatively often.

COST: Cost per work station (1/80) ranges from $1,150.00 to $2,190.00 with a mean cost of $1,544.00. The price includes shipping and enough supplies for 30 persons.

VOCATIONAL INFORMATION AND EVALUATION
WORK SAMPLES (VIEWS)

Vocational Research Institute
Jewish Employment and Vocational
Service
1700 Samson Street
Philadelphia, PA 19103

Target group: Mentally retarded.

SUMMARY:

The VIEWS contain 16 work samples that are used on four areas of work and six worker trait groups in the DOT. These areas were chosen because they represent the most common areas of training and employment for mentally retarded persons. The four areas of work represented are: (1) elemental-handling and feeding, (2) clerical, (3) machine tending, and (4) crafts.

PROCESS:

Each work sample uses the following procedure: demonstration, training and production. Training is provided on each task to a criterion level prior to the timed testing to insure that the evaluee understands the task. Work samples are presented in order of least-to-most complex. The total system can be administered in 25-30 hours. The VIEWS is not very useful in occupational exploration.

REPORTS:

Three types of standardized forms are used. A comprehensive final report format allows suggestions for a broad range of information.

COST: $7,675.00 includes work samples, manuals, forms, shipping, tuition for training, and one on-site visit. Training is required for purchase; travel expenses must be paid by the purchaser.

VOCATIONAL TEMPERAMENT AND APTITUDE
SYSTEM (VITAS)

Vocational Research Institute
Jewish Employment and Vocational
Service
1700 Samson Street
Philadelphia, PA 19103

Target group: Disadvantaged.

SUMMARY:

VITAS is composed of 21 work samples based on 15 worker trait groups in the DOT. Some of the work samples include: nuts, bolts, and washer assembly; pipe assembly; message taking; proofreading; payroll computation; circuit board inspection; filing; lock assembly; spot welding; and drafting. Originally designed for the disadvantaged, the system is thought to be useful with physically handicapped and mildly retarded persons.

PROCESS:

Work samples may be given in any order but usually progress from simple to complex. All work samples may be completed in around 15 hours. The VITAS has limited use in occupational exploration.

REPORTS:

The scoring and report forms are similar to those used in the JEVS and VIEWS.

COST: $8,190.00 includes work samples, manuals, forms, shipping, and tuition for training in Philadelphia, and one on-site visit. Training is required and travel expenses must be paid be the purchaser.

VOCATIONAL SKILLS ASSESSMENT AND DEVELOPMENT PROGRAM (BROADHEAD-GARRETT)

Broadhead-Garrett Company
4560 East 71st Street
Cleveland, Ohio 44105

Target group: All special needs groups.

SUMMARY:

This system is intended to provide a continuous program from initial assessment through training and job placement in three phases: (1) assessment; (2) seven vocational components used for occupational information and development of entry-level skills--basic tools, sheltered employment, building maintenance, health, agri-business, clerical/sales, construction trades; and (3) skills training for entry level skills in seven areas: health, agri-business, building maintenance, clerical/sales, automotive, small engine, and construction.

Phase I, assessment, is the only phase that can really be considered vocational assessment. This phase consists of the following activities: sorting, assembly, and salvage.

PROCESS:

Assessment components may be given in any order. Little information is provided concerning administration and scoring.

REPORTS:

Three report forms are used: (1) one on which time, errors, and total scores are recorded; (2) an Adjustment Instrument containing 14 characteristics dealing mainly with personal and social adjustment; and (3) a Work Habits Instrument which focuses on the performance of tasks.

COMMENTS:

Phase I of this system "lacks detailed evaluation and client instructions, norms, proper setup procedures, and scoring methods . . . The manual does not give enough information to accurately use the system." (Botterbusch, 1980)

WIDE RANGE EMPLOYABILITY SAMPLE TEST (WREST)

Jastak Associates, Inc.
1526 Gilpin
Wilmington, Delaware 19806

Target group: Severely mentally handicapped.

SUMMARY:

The WREST consists of ten work samples that are short, low-level tasks designed to primarily assess manipulation and dexterity abilities. The WREST seems most useful for assigning clients to suitable tasks in sheltered workshops. The ten work samples include tasks of folding, stapling, packaging, stringing, gluing, collating, color matching, pattern matching, and assembling.

PROCESS:

The work samples may be administered in any order with administrative time being approximately 1½ hours. Work samples may be administered to small groups of 3-5 persons. Each test contains a practice period prior to timed assessment.

REPORTS:

A single, two-page form is used to record all behavior observations, work history, and recommendations.

COST: Approximately $1,830.00.

APPENDIX O

INDIVIDUALIZED VOCATIONAL EDUCATION PROGRAM

Appendix O

INDIVIDUALIZED VOCATIONAL EDUCATION PROGRAM

Student: ____________________ Date: ________ Reviewed: __________

School district: ________________ Current grade level/placement _____

____

ARD Team: ____

____

VOCATIONAL PROGRAM PLACEMENT: _________________________

Annual goal(s): _______________________________________

____

# Instructional objectives	Techniques	Support services

Projected dates: ______________________________________

Evaluation criteria: __________________________________

____

SUPPORT/RELATED SERVICES

Service	Purpose	Projected dates

INDIVIDUALIZED VOCATIONAL EDUCATION PROGRAM, cont'd

ACADEMIC PLACEMENT: ____________________

Annual goal(s): ____________________

# Instructional objectives	Techniques	Support service

Signed: ____________________(Parent)

____________________(Student, if appropriate)

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